



NORTH COAST INTEGRATED REGIONAL WATER MANAGEMENT PLAN

Phase III

PROPOSITION 84 PLANNING GRANT PROPOSAL, ROUND 1

**ATTACHMENT 3:
WORK PLAN**

**Integrated Regional Water Management Program
Applicant: Humboldt County**

North Coast Integrated Regional Water Management Plan, Phase III Proposition 84 IRWM Planning Grant, Round 1

Attachment 3. Work Plan

Background Section

1. Regional Water Management Group

The North Coast Integrated Regional Water Management Plan (NCIRWMP) was developed under the oversight of the North Coast Regional Water Management Group (NCRWMG). The NCRWMG formed in 2005 when members saw the benefits of regional, watershed-based water management planning. Although some of the group's members had historically disagreed on water management issues, all agreed that formation of the NCRWMG and development of an Integrated Regional Water Management Plan (IRWMP) for the North Coast would be of great benefit to the region.

The NCRWMG is an innovative, stakeholder-driven collaboration among local government, watershed groups, tribes and interested partners in the North Coast region focused on integrated regional water management planning and implementation. The NCRWMG coalition consists of seven North Coast counties (Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Mendocino, and Sonoma), Sonoma County Water Agency and Mendocino County Water Agency. The NCRWMG has authorized Humboldt County to act on its behalf as the regional contract administrator for the NCIRWMP implementation and planning grants. Individual project proponents, under contract with the County of Humboldt, are responsible for project implementation.

The NCRWMG governance framework consists of two committees – the Policy Review Panel (PRP) which is the governing body for the NCIRWMP and the Technical Peer Review Committee (TPRC), an advisory body to the PRP that provides scientific and technical expertise to the North Coast IRWMP. Recently the PRP considered a proposal brought forth by a coalition of tribal governments and voted to include three tribal representatives to the NCIRWMP Policy Review Panel and Technical Peer Review Committee – making the North Coast the region with the most substantial formal tribal involvement in governance and technical review. This PRP decision is currently being considered for ratification by each county's Board of Supervisors; changes to the governance structure will need to be approved through a revised Memorandum of Understanding (MoMU) – the NCIRWMP guiding document. If approved, tribal representation appointments to the PRP and TPRC will be made by the tribes; no appointments have been made to date. A description of the NCIRWMP approach and a listing of current PRP and TPRC members can be found at <http://www.northcoastirwmp.net/Content/10318/preview.html>.

Policy Review Panel

Each County's Board of Supervisors has assigned up to two representatives to serve on the NCIRWMP PRP. This group of board members and elected officials provides direction and ultimate oversight to the NCIRWMP planning process. Tribal representation is being considered for ratification by member County Board of Supervisors and included into a revised MoMU for approval. Decision making is usually by consensus, with each member having one vote. When decisions cannot be reached by consensus, the majority opinion prevails. Representatives from Humboldt and Sonoma Counties respectively serve as Chair and Vice-Chair for the PRP.

Technical Peer Review Committee

The TPRC is comprised of technical staff and agency representatives either appointed by resolution from each county Board of Supervisors or by county PRP representatives when the Board of Supervisors delegated that authority to them. Proposed tribal representation is being considered for ratification by member County Board of Supervisors and will be included into a revised MoMU for approval. The TPRC provides support to the PRP in their evaluation of projects and plan development. Expertise on the TPRC includes fisheries, ecology, engineering, geology, agriculture, watershed planning and management, water infrastructure and energy. The NCIRWMP is in the process of developing a climate change mitigation/adaptation and energy independence advisory committee, which will provide technical input to the NCIRWMP staff, TPRC and PRP.

Regional Contract Management

In 2005, the NCRWMG unanimously nominated the County of Humboldt to act as the applicant and Regional Manager of grant funds for the NCIRWMP. To date the County of Humboldt has successfully managed over \$27 million in grant funding for 25 North Coast IRWMP planning and implementation projects. The Regional Management Team is led by a Supervising Planner and Administrative Analyst in the Natural Resources Planning Division under the direction of the Community Development Services Director. The Regional Management Team provides QA/QC on all invoices and progress reports submitted by sub-grantees prior to compiling regular grant progress reports and invoices to submit to the granting agency. The Regional Management process of providing initial review of required documentation from component projects aides in simplifying review and approval of progress reports and invoices by the granting agency. Auditable files are maintained and through the innovative web-based project management tool, access to project information is available to the public. In addition, Regional Management Team acts as the liaison between the project partners (sub-grantees, sub-contractors) and the granting agency to streamline communications.

Memorandum of Understanding

The NCRWMG is also defined by a Memorandum of Understanding (MoMU) signed by over seventy agencies, special districts, tribal organizations, non-governmental organizations, watershed groups and other stakeholders signifying their support for and participation in the NCIRWM planning process. The MoMU has proven to be an effective mechanism for developing a collaborative partnership between stakeholders within the North Coast Region. This flexible and adaptive approach allows the NCIRWMP to act as a nexus between statewide planning efforts and local planning. A copy of the NCIRWMP MoMU can be found at http://www.northcoastirwmp.net/docManager/1000004500/MOMU1_11_2004.pdf.

2. A Brief Description of the North Coast Region

The North Coast Region as defined by the NCIRWMP is consistent with the North Coast Region boundary (Region 1) delineated by the North Coast Regional Water Quality Control Board (NCRWQCB) and the North Coast Hydrologic Region for the Department of Water Resources (DWR). The North Coast Region is a hydrologic region composed of watersheds that drain to the Pacific Ocean from Marin County in the south to the Oregon border. The North Coast Region includes all of the Counties of Del Norte, Humboldt, Trinity and Mendocino, major portions of Siskiyou and Sonoma Counties and small portions of Glenn, Lake, Marin and Modoc Counties. The region encompasses a total area of approximately 19,390 square miles, including 340 miles of coastline and represents 12% of the California landscape. Maps of the North Coast region can be found on the NCIRWP interactive mapping application at <http://www.northcoastirwmp.net/Content/10376/map.html>.

The 2000 population of the entire region was approximately 664,000, with most of the population concentrated along the Pacific Coast and in the inland valleys immediately north of the San Francisco Bay Area. The 2000 median household income (MHI) in the North Coast region at \$36,774 was significantly lower than the state's at \$47,493. Thirty-six percent of the region's population and 84% of its geographic area are comprised of economically disadvantaged communities. Population statistics and Economically Disadvantaged Community delineation for the North Coast region will be updated with Census 2010 data when spatial data becomes available.

The region also contains a number of tribal boundaries that encompass a total of 256,280 acres or 2% of the North Coast region. The North Coast region has a significantly higher percentage of Native American residents at 4% than that of the state at 1%. The largest Native American reservations include the Hoopa Reservation in Humboldt County and the Round Valley Reservation in Mendocino County. Tribal lands, as defined by the Bureau of Indian Affairs, are depicted on NCIRWMP maps at <http://www.northcoastirwmp.net/Content/10376/map.html> and a list is provided in the NCIRWM Plan in Table 3, North Coast Federally Recognized Native American Tribes on page 38 (<http://www.northcoastirwmp.net/Content/10319/preview.html>).

Regional Physical and Biological Features

Significant natural freshwater bodies, apart from rivers and estuaries, are scant. The largest natural freshwater bodies are the remnant Meiss Lake in Siskiyou County, the Laguna de Santa Rosa in Sonoma County and historic Tule Lake in Modoc County. The North Coast Region contains 59 groundwater basins (approximately 1,015,139 acres total) identified by the California Department of Water Resources and designated on the basis of geological and hydrological conditions, these usually being the occurrence of alluvial or unconsolidated deposits.

Estuaries and littoral environments along the coast are extremely important to many species of waterfowl and shore birds, both for feeding and nesting and for anadromous salmonids, which use estuaries as staging areas to physiologically adapt to changes in salinity. Marine invertebrates and fish utilize the rich resources in tidal areas along the North Coast, and serve as forage for seabirds and marine mammals.

The region's coastline contains many local drainages that flow directly to the ocean; these include important ecosystems that may provide habitat for sensitive species, and other wildlife. The entire region contains many sensitive species including thirty federally endangered plant species, four federally endangered fish species, four federally endangered bird species, and seven federally endangered mammals.

Protected Lands, Sensitive Habitats & Special Designations

Nearly 49% of the North Coast region is permanently protected for open space purposes by public agencies or non-profit organizations, including over 290 parks, reserves, preserves, recreation areas, national monuments, national forests, state forests and other protected lands. Of the federally managed land in the region 1,073,735 acres have been designated as National Wilderness Preservation System areas under the provisions of the Wilderness Act of 1964.

The North Coast Region, in addition to the extensive amount of state and federal forests, also contains 21 areas designated as Critical Coastal Areas (CCAs), twelve Marine Protected Areas (MPAs) and eight Areas of Special Biological Significance (ASBS). These areas are considered to be environmentally sensitive and in need of protection or improvement by federal, state, and local governments.

The California Wild and Scenic Rivers Act was passed in 1972 to preserve designated rivers possessing extraordinary scenic, recreation, fishery, or wildlife values. Over one hundred North Coast waterways have been designated as Wild and Scenic Rivers and include the Smith River and tributaries, Klamath River and tributaries, Scott River, Salmon River, North Fork Salmon, Trinity River, Eel River, Van Duzen River, and Wooley Creek.

The Endangered Species Act (ESA) requires the federal government to designate "critical habitat" for any species it lists under the ESA. Critical habitat areas have not yet been determined for all ESA listed species; North Coast federally endangered species that have ESA critical habitat designations defined include baker's larkspur, contra costa goldfields, Kneeland penny-cress, yellow larkspur, marbled murrelet, western snowy plover, Chinook salmon and steelhead trout. Approximately 1,505 miles (6%) of North Coast streams have been designated as Chinook critical habitat and 3,030 miles (14%) have been designated as steelhead trout critical habitat .

Impaired Water Bodies

It is estimated that by linear measurement, 85% of all streams in North Coast are listed as impaired under Section 303(d) of the Clean Water Act, many flowing directly into CCAs, MPAs, ASBSs and ESA Critical Habitat areas. Nine North Coast Wild and Scenic Rivers are 303d listed and over 180 impaired streams flow directly into these rivers.

A majority of North Coast streams and rivers contain excessive amounts of sediment, resulting in a reduction in water quality and impacts to the beneficial uses of those waters. Water bodies that drain approximately 59% of the area in the North Coast Region are 303(d) listed due to sediment. Some of the most sensitive beneficial uses are impacted by sediment. Those uses are associated with migration, spawning, reproduction, and early development of coldwater fish such as Coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*O. tshawytscha*), and steelhead trout (*O. mykiss*).

North Coast Water Management

The region's residents all utilize water that originates in North Coast watersheds with some of the region's water exported to supply drinking water to the Bay Area and irrigation water for the Central Valley and Upper Klamath agriculture. The North Coast region contains water service providers of all types, from small, private facilities that provide water for just a few neighboring residences to large municipal suppliers and wastewater treatment facilities. Private water districts include those representing counties or portions of counties, municipalities, irrigation districts, or particular water bodies. The only federal water boundaries in the region are part of the Klamath Project in the Klamath Lake and Tule Lake area, which is administered by the US Bureau of Reclamation. A large number of North Coast residences are in rural areas with no water service and rely on groundwater wells and onsite-wastewater disposal systems – usually septic systems.

The history of water management of the region consists of resource use in the form of diversions for irrigation and consumption; timber harvest, gravel extraction, and agricultural commodities have been the economic drivers of the region since Russian and Mexican immigrants first arrived. In the early – mid twentieth century, several large water supply, flood control, and power generation projects were developed within the region, including the Klamath and Russian River Projects and the Trinity Lake Reservoir. More recently – in the past thirty years – the scope of water management in the region has been broadened to include environmental uses of water.

Today, the North Coast retains some of the last viable salmonid populations in the state and is a key source of clean drinking water for the region and beyond. Unlike many areas of California, the North Coast region continues to support important resource-related industries, including commercial fishing, timber harvesting, recreational tourism, and agriculture. While some of these industries will likely always exist in the region, the region is undergoing transition and becoming increasingly reliant on a service-based economy, rather than one focused on natural-resource extraction. This transition has been and will continue to be difficult for certain parts of the region, limiting the ability of local governments and other entities to provide important services for their residents, such as constructing reliable water supply infrastructure. Additionally, historic water conflicts and inter-jurisdictional disputes have challenged the region's ability to work together to address these challenges. Despite these challenges, the relatively undeveloped forestlands and watersheds of the North Coast region provide substantial opportunities for climate mitigation and adaptation, and local communities are very interested in the economic opportunities related to local energy generation.

While certain sub-areas within the region are economically stable, much of the North Coast is designated as economically disadvantaged, and is struggling with legacy environmental impacts from extractive natural resources industries such as timber harvest and gravel extraction. Due to limited funding at the county and local levels, all of the jurisdictions within the region face serious challenges to accomplish statewide water-management objectives as well as meeting requirements related to state and federal environmental regulations. The NCIRWMP works toward building ecological, economic and community health by addressing the North Coast's regional issues in a watershed context while preserving cultural heritage and addressing legacy environmental effects.

3. The Existing NCIRWM Plan and Its Adoption Status

The North Coast Integrated Regional Water Management Plan (NCIRWMP) was developed under the oversight of the North Coast Regional Water Management Group (see <http://www.northcoastirwmp.net/Content/10319/preview.html>). In 2005, all NCRWMP members formally adopted the North Coast IRWMP, Phase I. In 2007, the project team revised the Phase I plan to include information related to Integrated Coastal Watershed Management Planning and those Priority Projects that implemented Integrated Coastal Watershed Management Plans in the Mattole River, Russian River, Noyo/Big Rivers, and Salmon Creek watersheds. The revised plan was unanimously adopted by all seven members of the NCRWMP in July 2007 (see Table 1, NCRWMP Members and NCIRWMP Adoption Status).

Table 1. NCRWMP Members and NCIRWMP Adoption Status

RWMP Member	Year Joined NCRWMP	Plan Adoption	Adoption Resolution: 2005	Adoption Date	Adoption Resolution: 2007	Adoption Date
Del Norte County	2004	yes	2006-35	5/23/06	2007-047	7/24/07
Humboldt County	2004	yes	05-44	7/5/05	07-60	7/24/07
Mendocino County	2004	yes	05-120	7/19/05	07-150	7/17/07
Mendocino County Water Agency	2004	yes	05-120	7/19/05	07-150	7/17/07
Modoc County	2004	yes	05-25	7/5/05	07-32	7/17/07
Siskiyou County	2004	yes	05-95	7/5/05	07-127	7/17/07
Sonoma County	2004	yes	05-0649	7/12/05	07-0624	7/17/07
Sonoma County Water Agency	2004	yes	05-0649	7/12/05	07-0624	7/17/07
Trinity County	2005	yes	2005-089	11/4/05	2007-78	7/17/07

4. Public Process used to Identify Stakeholders and how they were included in the planning and decision making process for the NCIRWM Plan

The PRP has been deeply committed to openness, transparency, and inclusion in its planning efforts since its inception. It continues to refine and adapt its approach in order to reach the greatest number of stakeholders and address the breadth of water management, socio-economic and environmental justice issues facing the North Coast. The commitment to public inclusion in the process is an integral part of the NCIRWMP and mechanisms to invite participation will continue to be refined, revised, and reconsidered as water management and communication capabilities evolve and natural resources conditions change.

Entities including, but not limited to, cities, non-governmental organizations (NGO), Resource Conservation Districts (RCDs), tribes, water agencies, and wastewater treatment facilities, watershed groups, mutual water companies, special districts, timber, agriculture, business groups, universities,

electrical corporations, industry organizations and other stakeholder groups were identified and invited to participate via phone, email, person to person contact, and regional workshops held throughout the North Coast. The NCIRWMP website (www.northcoastirwmp.net) was developed to extend outreach capabilities, and includes capabilities for regular e-mail updates to all subscribers, as well as project upload functionality and options for input regarding posted documents. Since its inception, NCIRWMP staff has maintained an “Interested Parties” e-mail listserve to apprise subscribers of funding opportunities, meetings, workshops, mapped data, stakeholder information, documents, and relevant news.

The PRP and TPRC meet on an ongoing basis to review the plan and NCIRWMP planning process; discuss water, energy, climate change, environmental and economic issues related to the North Coast; evaluate funding opportunities; review legislative and policy issues; and discuss and review North Coast projects. All PRP and TPRC meetings are open to the public and public participation is encouraged. At least two weeks prior to all TPRC and PRP meetings, meeting date, location, time, and a preliminary agenda are posted on the NCIRWMP website. Following meetings, meeting notes and a list of attendees are posted on the website (see <http://www.northcoastirwmp.net/docs.php?ogid=1000000850>). The agendas designate time for the public to comment on any items included on the agenda or any other items of interest and that time period often extends well beyond the time allotted on the agenda. Stakeholders are routinely brought into discussions - especially on issues that are controversial or contentious - and all interested parties are sought for comment and input.

If interested parties are unable to attend a targeted meeting or agenda discussion, their input is solicited through other mechanisms – phone, email, or website submittal – and brought to the attention of the PRP by staff for discussion and consideration. To date, 18 PRP & TPRC meetings have been held throughout the region. Meeting schedules, agendas and minutes are documented on the NCIRWMP website library under NCIRWMP Governing Body and Leadership, <http://www.northcoastirwmp.net/docs.php?ogid=1000000850>.

The NCIRWMP is exploring the effectiveness and capacity in the North Coast for web and tele-conferencing options in an effort to include more stakeholders in meetings and workshops, while reducing travel-related Greenhouse Gas emissions across this large region.

Stakeholder Participation

Stakeholder meetings were held – via workshops, small group meetings, and phone meetings – throughout the region (see Table 2, *Participants Receiving Information and Providing Input to the NCIRWMP Process*). Twenty workshops were held in the North Coast Region from 2006 – 2010 for stakeholders throughout the region. Workshops provided information pertinent to regional water management planning including local, regional and statewide goals and objectives, information on the North Coast regional planning framework, and opportunities for funding. The workshops also provided a forum for inclusion of local issues into the IRWMP and an opportunity for stakeholders to provide feedback into the IRWM process. In order to provide equal access for all of the region’s residents, including economically disadvantaged communities, workshops were held throughout the region with groups ranging in size from 10 to 50.

The NCIRWMP planning team has engaged in numerous phone calls, one-on-one meetings and presentations to inform stakeholders about the process and receive input. Prior to major decisions, staff of the NCIRWMP has held small one-on-one meetings, conducted email exchanges, and contacted stakeholders by telephone to ensure that the PRP has input from the diversity of interests regarding the decision under consideration. All comments are heard by the PRP and taken into consideration when evaluating alternatives. Small targeted meetings also provide information and integration opportunities for emerging issues and activities in the region.

All drafts of the NCIRWMP, meetings, grant applications, policy decisions, project prioritization and evaluation criteria, policy and technical committee members, and processes related to the plan are public, and a targeted outreach program augments the availability of data via the NCIRWMP website. All stakeholders and members of the public are encouraged to propose projects and submit them for review. Additionally, e-mail has proved to be an effective mechanism for communication between North Coast stakeholders and the project team.

Table 2. Participants Receiving Information & Providing Input to the NCIRWMP Process

Outreach/Input Approach	2005	2006	2007	2008	2009	2010	Approx # participants
Website (unique visitors)	x	x	264	3,451	3,845	3,000	10,560
Website (total visits)	x	x	452	6,824	7,076	7,000	21,352
Workshops	502	64	88	28	67	422	1,171
Small group meetings & presentations	40	55	50	70	450	120	785
Phone calls	x	x	x	x	x	x	3,330
E-mails	x	x	x	x	x	x	5,500
Conferences	200		645	175		120	1,140
Board of Supervisors Meetings	3	7	7	3	5	2	400, including audience
TOTAL PARTICIPANTS							44,238

Participants are comprised of representatives from municipalities, tribes, watershed groups, local, state and federal agencies, academic institutions, private businesses, landowner groups, RCDs, NGOs, industry groups, agriculture, as well as local, state and federal elected officials.

Stakeholder Outreach via Website and Email

Substantial stakeholder involvement has been accomplished via the NCIRWMP website (www.northcoastirwmp.net) – a means for people in a diverse and large geographic region to stay connected and informed, provide input and upload proposed projects. Use of the website is very helpful for inclusion of economically disadvantaged communities (DACs) and stakeholders with limited resources – all of the planning and implementation information regarding the North Coast IRWMP, including feedback mechanisms – is no farther than the local public library for those who do not have an internet connection at their home or office, ensuring access for all, regardless of economic status. The website and e-mail listserve have been very successful at conveying large amounts of complex

information to a wide variety of stakeholders dispersed across the North Coast region. Because of the geographic scope of the North Coast, the website is the most efficient method for disseminating information to and receiving input from the largest number of stakeholders. The email listserve is used to inform stakeholders of special events such as the NCIRWMP conference, critical news items or funding opportunities (IRWMP and others). All NCIRWMP correspondence contains contact information for NCIRWMP staff so that questions or concerns can be immediately addressed. NCIRWMP staff is readily available to the public to respond to inquiries or to speak at organizational meetings.

598 individuals have become registered users of the site, and over 8,800 have visited the site over time, with a total of 17,266 total visits to the site. Users regularly provide suggested revisions, calendar items, questions and other input via this mechanism. When new information is posted to the website, registered users have the option to receive email alerts. The frequency and content of the email alerts can be adjusted to conform to user preferences, allowing users to tailor updates to their interest level.

The website also contains a library of information relevant to water and natural resources management issues in the North Coast, as well as an on-line mapping feature that allows users to view various watershed, natural resources, socio-economic and jurisdictional data as well as proposed project locations (see <http://www.northcoastirwmp.net/Content/10376/map.html>). In addition to information sharing, the website was used for project upload during Phase I via an online template that prompted users for the key information listed in the state IRWM guidelines and other program documents (see <http://www.northcoastirwmp.net/rpf.php?rpfView=2>). A survey function has been developed for the site, and was used for evaluations of the NCIRWMP conference (see http://www.surveymonkey.com/s.aspx?sm=9ID1rzjob66cFSmozdhaNq_3d_3d). In addition, the website is a transparent mechanism for providing information and allowing input from throughout the region. Through the Online Project Management Tool, the website provides an accountable and transparent mechanism for stakeholders, grant managers and the general public to track project progress, read reports and to see where state funds have been spent to date (see <http://projects.northcoastirwmp.net/projects>).

Stakeholder Outreach via Conference

The Sonoma County Water Agency and NCIRWMP staff planned and scheduled an interactive conference on October 10-12, 2007 in Fortuna to disseminate information about the NCIRWMP planning process and other relevant state, federal and local processes, to solicit input from stakeholders, and to enhance the collaborative framework that has been the cornerstone of the NCIRWMP planning process. About 250 stakeholders from the region attended, as well as legislators, DWR staff and other state, federal and local agency staff. The conference program, evaluation, presentations, photos, attendee-list and other information are on the NCIRWMP conference web-page at:

http://www.northcoastirwmp.net/Content/10337/North_Coast_IRWMP_Conference_2007.html.

Conference attendees included local and state elected officials, tribal representatives, local governments, water/wastewater entities, advocacy groups, NGO's, RCDs and business groups. Local

agencies, such as cities, counties, and resource conservation districts were represented by 60 attendees with business and NGO representatives numbering 49 and 40 respectively. State agencies were represented by 37 attendees, federal agencies by 9, and 8 attendees represented tribes or tribal interests. Thirty-two elected officials or their representatives attended the conference. This conference provided networking opportunities and allowed a diverse complement of stakeholders to exchange ideas and participate in regional planning for the North Coast.

Agenda items included a focus on the planning process to date, future opportunities, policy developments, climate change, economic development, sustainable agriculture, mechanisms to improve the planning process, technical training and demonstrations on the website, an input session on the California Water Plan update, and technical sessions focused on grant application development and data integration & decision support tools (see

http://www.northcoastirwmp.net/docManager/1000006424/NCIRWMPConf_Prgrm_final.pdf.

Throughout the conference, DWR and SWRCB representatives played key roles in information dissemination – they participated in the Plenary Session, panel sessions, as individual speakers, and as workshop leaders. Additionally, DWR coordinated with NCIRWMP staff to hold the *California Water Plan Update and Stakeholder Input Session*. This session allowed North Coast residents the opportunity to learn more about and provide direct input to the 2009 California Water Plan. The session also showed one way the NCIRWMP serves as a framework for information dissemination from state policy level to the local implementation level, providing needed information to stakeholders and allowing the state to receive valuable feedback in a collegial setting from those directly affected by state water policy.

During the conference session titled *What's Next: Economic & Environmental Vitality for the North Coast Region*, participants were asked to form small groups to discuss and provide input to the next phase of the NCIRWM Plan. Specific topics included broadening involvement in North Coast integrated planning, bridging conservation and economic interests, and water management challenges in the region. This input will be utilized to develop future iterations of the Plan, ensuring that the NCIRWMP continues to represent – even as it broadens that representation – a diverse range of North Coast stakeholders.

In-depth technical workshops were also provided during the conference: Grant Writing/Technical Assistance and Decision Support Tools for North Coast Integrated Planning. The grant writing workshop provided practical, hands-on information for those interested in submitting a grant application through the NCIRWMP planning process, including available funding, grant criteria, NCIRWMP priorities, funding focus areas, and grant application processes. The decision support tools workshop provided an overview of GIS-based decision support tools and a discussion of the relevance of different tools for various applications in the North Coast. These workshops provided technical training to stakeholders, including DACs.

North Coast IRWMP member agencies provided scholarships to ensure that no one who wished to attend would be excluded from participating in the conference for any reason, including inability to pay the conference fee. Over twenty entities received financial aid scholarships or conference fee waivers.

Outreach via Interviews

Project proponents were surveyed regarding their experiences with the Phase I application process and the PRP and TPRC were interviewed regarding the Phase I application process and future direction for the NC regional planning. Interviewees identified parts of the application process that were challenging and suggested changes that would improve it. They also identified positive features of the process and made suggestions for future direction of the IRWM Program in general and the NCIRWMP specifically. These responses were analyzed, summarized, and presented to the PRP and to the state.

The interviews and surveys also fed into the NCIRWMP adaptive management process. As we learn more from our stakeholders and project proponents, project evaluation and criteria have been modified to better reflect constraints and opportunities relevant to the North Coast. Additionally, comments and suggestions were also incorporated into the Phase II planning process. For example, several individuals expressed concern over the ability of DACs to participate in the process and in response to these concerns and recognition that DACs may require additional assistance, the PRP directed staff to conduct targeted outreach to water and wastewater providers in DACs.

5. The process used to identify the region's DACs and how they were engaged in the NCIRWM Planning process

MHI and total population census tract and place data from the 2000 US Census were used to determine disadvantaged communities in the North Coast Region. Both categories of census geographies were used because of the largely rural character of much of Northern California. MHI census tract data was used to determine which tracts contained disadvantaged communities. MHI census place data was overlaid upon the tract data to determine which places contained non-disadvantaged communities. Places that were not disadvantaged but are located within a disadvantaged census tract were clipped out of the tract.

According to spatial data derived from the 2000 Census, thirty six percent of the region's population and 84% of its geographic area (10,464,758 acres) are considered economically disadvantaged. California's DWR, IRWM Proposition 84 Guidelines define DACs as those communities – either places or tracts - with a MHI of less than \$37,994, which is 80% of the statewide Census 2000 MHI. The State of California Health and Human Services Agency, Department of Health Services defines "Severely Disadvantaged Community" as a community with an annual household income that is less than 60% of the statewide annual median household income. Based on this definition, nearly 43% of the North Coast geographic area is considered Severely Disadvantaged.

The North Coast IRWMP places a strong emphasis on ensuring the inclusion of DACs in the planning and implementation process. DACs have been involved in all aspects of the NCIRWM planning effort from its inception, including plan review and input, attendance and participation at meetings, and DACs comprise a substantial portion of the priority project proponents who are currently implementing projects

(http://www.northcoastirwmp.net/Content/10344/North_Coast_IRWMP_Implementation_Projects.html). The NCRWMG consists of two committees – the PRP which is the governing body for the North Coast

IRWMP and the TPRC, an advisory body to the PRP that provides scientific and technical expertise to the North Coast IRWMP. Economically disadvantaged communities are represented by members of each committee. In addition, the majority of signatories to the North Coast IRWMP Memorandum of Mutual Understanding – a document that expresses support for the NCIRWMP process - are, represent, or provide services to DACs. Many of the NCIRWMP Priority Projects are being implemented and will benefit the people, water resources and habitats in these communities. NCIRWMP staff is currently identifying and contacting small wastewater treatment and water supply facilities in the region to develop collaborative relationships with smaller DACs; this is an area in which the NCIRWMP, Phase II is deficient. The NCIRWMP will include a discussion of the infrastructure needs of these communities in the Phase III iteration of the North Coast IRWM Plan. A list of North Coast water management agencies is included in the NCIRWMP Regional Acceptance Process documents in Appendix 4 (http://www.northcoastirwmp.net/docManager/1000006846/NCIRWMP_RAP_042809_text_app.pdf).

The NCRWMG, through an adaptive management process, modified its project evaluation in response to environmental justice concerns. During the Phase I Plan project evaluation process, the TPRC became aware that many of the applications from disadvantaged communities were lacking the technical expertise evident in applications from entities with greater resources. The TPRC continued to evaluate each project on a technical basis, but included a discussion on concerns regarding environmental justice considerations when submitting project rankings to the PRP. The PRP took this information into consideration when prioritizing projects and revised the weight given to projects benefitting DACs, specifically those projects identified by the applicants and TPRC as addressing threats to public health. This process also brought awareness to the regional nature of these issues – that these projects and communities aren't isolated – they span the more than 19,000 square miles of the North Coast Region, and the water supply, quality and ecosystem benefits of solving these individual problems will yield results at local, regional and statewide scales. The PRP committed staff to provide technical assistance including project feasibility studies development, on-site technical assistance, engineering support, GIS mapping, permitting, eligibility, economic analysis and budgetary advice and assistance to any project proponent in need.

NCIRWMP staff is currently initiating a needs assessment of water suppliers and treatment facilities that serve economically disadvantaged communities. Based on a preliminary listing of available sources, there are more than 200 water service providers in the North Coast region and over 70% of these are located in and serve economically disadvantaged communities.

The NCIRWMP *Regional Strategy for Small Disadvantaged Water and Wastewater Providers* was developed in November 2009 in collaboration with DWR. Recognition of the need for this plan grew out of stakeholder input and feedback from the Phase I and Phase II NCIRWMP process and the strategy will be incorporated into the Phase III NCIRWMP. Economically disadvantaged communities in the North Coast region of California are disproportionately affected by inadequate wastewater and water supply infrastructure; failing and sub-standard systems create public health risks, negatively impact aquatic systems and create economic hardships for these rural areas. Not only will the strategy create a demonstration initiative that can be exported to other disadvantaged communities in California, it will also inform sections of the next version of the NCIRWM Plan and directly addresses NCIRWMP

objectives to protect and enhance drinking water quality and address environmental justice issues related to disadvantaged communities. Inclusion of this strategy within the Phase III NCIRWMP will address enhanced Plan Standards regarding DACs, relation to local water and land use planning, and coordination.

Tribal Engagement

The NCIRWMP has a long history of engaging tribes and tribal entities in the planning process, and has expanded its emphasis on tribal participation by inviting tribal representation on the NCIRWMP Policy Review Panel and Technical Peer Review Committee, during the NCIRWMP meeting in June 2010. This decision is being considered by each of the County's Board of Supervisors and once approved, will be included in an updated MoMU. The NCIRWMP staff and leadership have been working with North Coast tribes and the Environmental Justice Coalition for Water (EJCW) to identify ways to provide meaningful tribal participation and mechanisms to build capacity, collect data and share information towards an improved NCIRWMP planning process that includes indigenous knowledge, expertise and represents the needs and priorities of North Coast tribes. This expanded focus on tribal participation responds to changes in Plan Standards regarding tribal participation and inclusion; the Phase III NCIRWMP will specifically address tribal participation and water-related issues and coordination on tribal lands.

6. The process used to identify the regions' water related objectives and conflicts

The NCRWMP integrates long-term planning and high quality project implementation in an adaptive management framework—fostering coordination and communication among the diverse stakeholders in the Region. Initially, the NCRWMP met at length to identify and describe issues of concern in the North Coast region including the state of water resources, watershed conditions and economic vitality of the region. The PRP evaluated all the concerns brought to the table and worked collaboratively to develop a list of four focus areas and seven objectives for the region that reflected the most pressing concerns.

Focus areas for the NCIRWMP include salmonid recovery, enhancement of the beneficial uses of water, and the synchronization of state and federal priorities with local priorities, knowledge, and leadership. The PRP initially agreed on four main regional goals: 1) restoring salmon populations, 2) enhancing the beneficial uses of water, 3) encouraging local autonomy and interregional cooperation, and 4) enhancing public health and economic vitality in disadvantaged communities.

The NCIRWMP Objectives include:

- Conserve and enhance native salmonid populations by protecting and restoring required habitats, water quality and watershed processes
- Protect and enhance drinking water quality to ensure public health
- Ensure adequate water supply while minimizing environmental impacts
- Support implementation of Total Maximum Daily Loads (TMDLs), the North Coast Regional Water Quality Control Board's (NCRWQCB) Watershed Management Initiative, and the Non-Point Source Program Plan

- Address environmental justice issues as they relate to disadvantaged communities, drinking water quality and public health
- Provide an ongoing, inclusive framework for efficient intra-regional cooperation, planning and project implementation
- Implement energy independence, greenhouse gas emissions or climate change adaptation project elements

These objectives are not prioritized nor are metrics for measuring attainment provided in the NCIRWMP Phase II, however, they will be prioritized and metrics will be provided in the Phase III Plan in accordance with the newly released Plan Standards.

In recent years, as climate change and energy independence issues have moved to the forefront of environmental and economic issues facing the region, state, and nation, the PRP has expanded its focus on water-related issues to include other environmental challenges facing the North Coast, including energy and climate change. In early 2009, the group agreed to utilize the NCRWMP framework to communicate its commitment to address energy and climate change issues to stakeholders, to serve as a regional nexus for pursuing greenhouse gas emission reduction grant funding, to identify local and regional climate adaptation strategies, and to improve local and regional economies through support for and use of green technology. Preliminary reports were developed to analyze climate change concerns, existing initiatives and sustainable energy strategies appropriate to the North Coast region. Existing energy independence, emissions reduction and climate adaptation projects were identified throughout the North Coast region along with funding opportunities to support and grow those programs and projects. For more information about North Coast Strategies for Energy Independence and Emissions Reduction see

[http://www.northcoastirwmp.net/Content/10349/North Coast Strategies for Energy Independence Emissions Reduction.html](http://www.northcoastirwmp.net/Content/10349/North_Coast_Strategies_for_Energy_Independence_Emissions_Reduction.html). Although these strategies are not contained within the NCIRWMP Phase I or II, they will be incorporated into the Phase III IRWMP in response to new Plan Standards that call for climate change adaptation planning.

No conflicting policies among the members of the NCRWMP or signatories to the MOMU have been identified, but competing interests are inherent where natural resources are scarce. While most North Coast residents share values regarding our natural resources and the importance of just treatment of all citizens, communities and individuals differ in their beliefs about how those values should be implemented, thereby leading to potential conflicts. NCRWMP members are elected officials or their appointees; as such, they represent a wide diversity of interests and stakeholders. From previous experience in project prioritization, developing NCIRWMP objectives, and resolving past conflicts, group members are well acquainted with addressing water management-related controversy by finding common ground from which to move forward. For example, the Phase I NCIRWMP contained several projects that were developed to reduce conflict over water rights. NCIRWMP project summaries can be found at <http://www.northcoastirwmp.net/rpf.php>. The NCIRWMP framework serves as a forum for discussion, a mechanism for conflict resolution, and as a conduit for information exchange to allow the region's stakeholders to proactively address regional issues. The NCIRWMP emphasis on addressing

regional goals and objectives – while respecting local knowledge, priorities and autonomy - has allowed for the region to move past many challenging conflicts.

One leading area of conflict in the North Coast is that of environmental water supply. For example, although both environmentalists and farmers have a deep connection to the land, they have clashed over the distribution of water in the region. Some environmentalists strongly believe that environmental uses of water such as instream flows, which maintain salmonid fisheries, are the most important beneficial use, while some farmers believe that agricultural uses, which support the local economy and a traditional way of life, are the most beneficial use. Other stakeholders, including commercial and recreational fishers, Native American tribes, and corporations, have their own unique beliefs about resource allocation in North Coast watersheds. These differing viewpoints coupled with recurring drought have led to ongoing controversy about how to best utilize and care for natural resources to support continued water use, hydroelectric generation, flood control and anadromous fisheries.

Ensuring adequate water to support population growth while protecting the associated wildlife, flora, and industries of the region is a key challenge for the North Coast. The region's population is steadily increasing, but environmental and financial concerns make the construction of large new surface storage projects less feasible now than in the past. In contrast to such projects, the current options for expanding supply – recycling, desalination, conservation and conjunctive use are primarily local or sub-regional in scope.

Conflict often occurs between different types of resource users when water scarcity or impairment occurs, whether recreationalists, sport fishermen, commercial timber, farmers, or other interests are involved. For a more in-depth discussion of water management related conflict in the North Coast region, please see North Coast Regional Acceptance Process, Section 7B, Regional Water Management Issues and Conflicts at <http://www.northcoastirwmp.net/docs.php?ogid=1000001733>.

The NCIRWMP is well poised to serve as a framework for integrating water supply efforts to address needs and concerns of multiple stakeholders. North Coast Region counties, jurisdictions and tribal communities clearly recognize the need for collaboration regarding water resource issues and have indicated willingness and in many cases, eagerness, to participate in the process. Many of the NCIRWMP projects currently being implemented represent innovative solutions to these water conflicts – an example being two dam removal projects in Siskiyou County that benefit endangered Coho salmon by ensuring adequate instream water supply and quality, while ensuring adequate supplies of water for agricultural uses.

7. The process used to determine criteria for developing regional priorities

Regional priorities and criteria were established by the NCIRWMP PRP after regular and ongoing review of the extensive scientific, technical, socio-economic and other data synthesized by staff and the TPRC, by the PRP's active solicitation of the ideas and concerns of stakeholders in the region via meetings, workshops, conferences and web-based polling, and thereby determining the most pressing needs and challenges related to North Coast integrated water management. These priorities represent the

foundation areas of water quality, water reliability, public health, energy independence/climate change, flood and stormwater management, watershed protection/restoration, and local land use planning. While these multiple, strongly integrated regional priorities have been identified, the PRP has also placed a special emphasis on technical assistance and capacity building in disadvantaged communities, and has ensured that this emphasis is integrated into all planning and implementation priorities.

The PRP, in an open, transparent and inclusive process, and with support from the TPRC and input from stakeholders throughout the region, has set the criteria for the region's priorities and continue to examine and re-evaluate these priorities through an adaptive management process. In 2005, the NCIRWMP initiated this commitment to adaptive management, relying heavily on scientific and technical data and the expertise of the NCIRWMP TPRC. The Phase I Plan provided an initial guide for evaluation, criteria development, planning, collaboration, project prioritization and implementation; integrating data and criteria related to wastewater, water supply, water quality, watershed health, economic factors and fisheries. This foundation was built upon during Phase II to include additional criteria regarding issues of concern and opportunities for improvement including a programmatic approach to reducing pollution in impaired waters and sensitive habitat areas such as CCAs, MPAs and ASBS and climate change adaptation, mitigation and energy generation.

In addition to the more traditional datasets typically associated with an adaptive management approach, the NCIRWMP continually integrates new information related to socio-economic factors and process improvement. For example, the project review process and criteria has been revised to recognize the economic challenges faced by DACs, and the proposal submission process has been revised to provide support to projects in need of technical assistance. These revisions will be formalized in the Phase III NCIRWMP.

The NCIRWMP has an ongoing commitment to new data integration, regional priority evaluation, criteria development, stakeholder outreach, involvement, and an open, transparent process – all integral components of an adaptive management process. It also provides a mechanism for region-wide discussion of data and management objectives and a proven technically sound decision-making process for evaluation of management alternatives. The Phase III Plan will continue this self-reflective process, further refining adaptive management processes in place to incorporate upcoming issues of concern to the state and local entities including groundwater quality and quantity, energy independence, economic stability, and flood amelioration.

8. The data and technical analysis collected/performed and how that data is managed

The Data Management Plan for the North Coast Region presents an initial framework for identifying appropriate indicators or performance measures with associated benchmarks for determining the condition of waterbodies and watersheds in the North Coast Region; to objectively assess project and plan performance; and to facilitate adaptive management. The Data Management Plan discusses the goals and need for a performance measure framework; describes existing data management programs; identifies potential indicators and metrics for the North Coast region; lists potential methodologies and protocols; data sources and potential benchmarks and thresholds. The 2010 iteration of the data

management plan is provided on the NCIRWMP website at http://www.northcoastirwmp.net/Content/10377/North_Coast_Assessment_Monitoring_and_Data_Management.html. This Data Management Plan will be incorporated into the Phase III IRWMP along with enhanced data management descriptions and policies that respond to new data management requirements in the recently issued Plan Standards.

The NCIRWMP GIS database has been maintained and periodically updated, with the development of new data layers, addition of newly available public data, and updating of existing data. Federal Geographic Data Committee (FGDC) compliant metadata have been created for all data layers. New data layers and analyses have included project proximity and impact to sensitive habitats, protected lands, jurisdictional boundaries, impaired waterbodies and regional plan recommendations. A catalog of NCIRWMP project GIS and synthesis report about the data analyses are included in the Proposition 50 IRWM Planning Grant Final Report Appendix 11, North Coast IRWMP Geospatial Catalog and Appendix 12, NCIRWMP Spatial Data Analysis Report.

The NCIRWMP Implementation Project web portal provides a listing of the 26 NCIRWMP funded priority implementation projects hyperlinked to individual project pages that includes a project description, goals, budget information, links to press releases and project photos (see http://www.northcoastirwmp.net/Content/10344/North_Coast_IRWMP_Implementation_Projects.html)

In addition, a link to the Online Project Management Tool is provided on the NCIRWMP Implementation Project web portal, which facilitates tracking and managing progress on the 26 NCIRWMP implementation projects by the County of Humboldt. This web-based project management tool provides an on-line mechanism for sub-grantee submittal of monthly invoices and reports, review of supporting documentation and project timeline, and upload and public review of project deliverables. The web-based project management system increases the efficiency of project tracking, communication and project management transparency and accountability while minimizing the amount of paperwork generated (see <http://projects.northcoastirwmp.net/projects>).

The NCRWMP is committed to the collection, synthesis, analysis and reporting of relevant information and technical data for effective NCIRWM planning and information sharing about the North Coast region. Planning and other relevant documents are made accessible to stakeholders through the NCIRWMP website and include North Coast Regional News, regional and watershed planning documents, watershed information, funding opportunities, project implementation reports and documents, calendar events, meeting agendas and minutes, NCIRWMP grant applications, strategies for energy independence and emissions reduction, and IRWMP program updates. Following is a listing of some of the key sets of data compiled and made available to North Coast stakeholders:

- Each month, the North Coast News contains information pertinent to North Coast water and natural resources including funding opportunities, legislative and legal changes, upcoming conferences/events, agency activities, new publications and media, regional news and local news compiled from news sources throughout the state (http://www.northcoastirwmp.net/Content/10328/North_Coast_Region_Events.html).

- Water and natural resource related planning documents, and management plans for the North Coast region and the state are listed and posted throughout the NCIRWMP including over 80 North Coast Documents and Plans (http://www.northcoastirwmp.net/Content/10331/North_Coast_Documents_and_Plans.html).
- North Coast Assessment, Monitoring and Data Management information about monitoring and assessment protocols and data sources; existing monitoring programs; and educational materials and training opportunities (http://www.northcoastirwmp.net/Content/10377/North_Coast_Assessment_Monitoring_and_Data_Management.html).
- A listing of Energy Independence, Climate Change Mitigation and Adaptation Resources relevant to the North Coast region along with 21 strategies for addressing energy independence, greenhouse gas emissions reduction and climate change adaptation (http://www.northcoastirwmp.net/Content/10349/North_Coast_Strategies_for_Energy_Independence_Emissions_Reduction.html).
- Watershed Management Area assessment, management, conservation and restoration plans (http://www.northcoastirwmp.net/Content/10300/North_Coast_Watersheds.html).
- The calendar function of the NCIRWMP website allows for a view of all upcoming events and meetings that may be of interest to North Coast stakeholders (<http://www.northcoastirwmp.net/cal.php>).
- As a content manager, the Library organizes and archives NCIRWMP files in a variety of electronic formats including reports, presentations, spreadsheets, images, multimedia, and web resources. The searchable library database enables comprehensive user searches as well as targeted data mining for online data catalogs, such as the California Environmental Information Clearinghouse (<http://www.northcoastirwmp.net/docs.php>).
- MapServer Internet Mapping Application data layers include: North Coast IRWMP boundary, NCIRWMP - Prop 50 funded projects, NCIRWMP - all projects, economically disadvantaged communities, county boundaries, tribal lands, hydrologic units, 303d listed major streams, Critical Coastal Areas, Marine Protected Areas, Areas of Special Biological Significance, wilderness lands, Chinook critical habitat, steelhead critical habitat, NFWS Critical Habitat and Google-based terrain and satellite backdrops (<http://www.northcoastirwmp.net/Content/10376/map.html>).
- Project information for the 127 NCIRWMP projects can be accessed through the Project web portal at <http://www.northcoastirwmp.net/rpf.php?rpfView=2>.

9. How integrated resource management strategies are employed

The NCIRWMP acts as a regional framework for synchronizing statewide planning and priorities with local planning efforts -- allowing statewide objectives and resource management strategies to be effectively understood and applied to multiple local areas. The NCIRWMP provides for the assembly of local (watershed and county) components and projects into a locally led regional plan.

The NCIRWMP framework, by providing a vehicle for local agencies to address state objectives when implementing projects to meet local water related resource management needs, provides the structure and flexibility necessary to promote cohesion while allowing for local autonomy. The NCRWMP and staff provide opportunities for individual project proponents to connect to other local projects in order to maximize achievement of statewide resource management strategies and deliver greater cumulative benefits to the region's waterways.

The NCIRWMP offers a framework with which to address regional water supply reliability, public health issues, TMDL development and implementation, low flow regulation, water rights permitting, salmonid recovery, land use policy, and energy independence through integrated projects. The integration of multiple water management strategies through implementation of projects distributed throughout the region provides long-term benefits to the environment and disadvantaged communities, and will protect and restore beneficial uses in the entire region. By evaluating local projects within a regional framework, the NCRWMP is able to prioritize projects that address the most pressing water quality, environmental, human health, and water supply issues.

Projects are identified on an ongoing basis, and stakeholders are made aware of funding opportunities and criteria via the website, workshops, one-on-one meetings and phone calls with NCIRWMP staff. The NCIRWMP has a formal process for soliciting projects and criteria and quantitative evaluation processes that screen for well integrated projects that address multiple objectives. All submitted projects are evaluated by the Technical Peer Review Committee and ranked by the Policy Review Panel. All eligible projects are then included in the NCIRWMP. This ongoing process of project identification and evaluation allows for the NCIRWMP to document the resource management needs of the North Coast region on a regular basis, and incorporate this needs assessment into the planning process.

Project and resource management strategy integration provide multiple water and resource benefits, diversify the North Coast water portfolio and assist the region to become more regionally self-sufficient. By collaborating to address regional water supply and quality issues, North Coast stakeholders conserve resources through cost-sharing techniques and coordinate activities for maximum effectiveness. The Phase III NCIRWMP will address 2009 California Water Plan Resource Management Strategies newly identified by the state, such as Resources Stewardship and others that it has not robustly addressed in Phases I and II, such as Flood Risk Management.

10. How the IRWM Plan will be implemented and expected impacts and benefits

There are many benefits associated with synchronized, regional planning at the North Coast regional scale as opposed to establishment of myriad county-based or watershed-based efforts for the region. County or watershed-based efforts in the region would be limited and complicated due to boundary issues and planning approaches. Many watersheds are in multiple counties, and the approaches that have historically been applied to watershed-based planning are profoundly different from the planning approaches typical of county-based general plans, which do not cross county boundaries and often do not address watersheds and watershed processes in a substantive way. With a regional approach to integrated water management planning, the NCIRWMP can provide a framework for melding different

spatial scales, jurisdictional and physical boundaries, and planning methodologies into a cohesive mechanism for efficient attainment of water management goals – both statewide and locally.

The NCIRWM planning process and implementation of Priority Projects identified through that planning process address ecological impacts at their source and generate benefits that will materialize in the regional and statewide economy, from watershed headwaters, through downstream rivers and estuaries, to the nearshore and offshore marine environments. The projects directly address important goals of the NCIRWMP and the State of California: enhancing native salmonid habitat, providing adequate water supply to disadvantaged communities, and protecting and enhancing beneficial uses of California’s impaired waterbodies and sensitive habitat areas. The projects also advance the implementation of statewide priorities and program goals, emphasize intra-regional collaboration, and address environmental justice issues in the region’s communities. Furthermore, NCIRWM planning and projects meet IRWM Program Preferences: integrated projects with multiple benefits, help to resolve significant water-related conflicts, integrate water management with land use practices, improve local and regional water supply reliability, advance water quality standards, reduce pollution in impaired waters and sensitive habitat areas, and address drinking water supply and water quality in disadvantaged communities.

NCIRWMP Priority Projects work on both local and regional scales to meet local needs and assist the achievement of statewide objectives. For example, the Mattole Integrated Water Management Program improves salmonid habitat, water supply, and water quality locally through NPS reduction, water storage and conservation, education, invasive species removal, and habitat restoration while implementing CDFG recommendations to meet regional Coho recovery goals. Other projects improve water quality through wastewater treatment plant repair and renovation, road repair and decommissioning, NPS pollution prevention, and upgrading or replacing water storage tanks. These projects, while improving local water quality, also act synergistically to improve habitat for salmonids throughout the North Coast region. Additionally, wastewater treatment plant renovations that contain a water recycling component and water storage tank projects improve local supply reliability while also enhancing environmental and other beneficial uses and decreasing the amount of water that must be trucked to remote areas during the dry summer months, thus having an effect on regional water supply and air quality.

The NCIRWM planning process and Priority Projects improve water quality and water supply in the North Coast region’s watersheds by correcting for past damages that contribute ongoing impacts to the region’s ecological and economic health. The projects initiate important restoration, remediation, and education activities designed to control sediment, restore riparian habitat, augment water supplies for municipal systems, provide ecosystem services, mitigate for climate change and provide educational opportunities regarding best management practices (BMPs) for water conservation and sediment reduction. Priority project implementation, enhance the region’s ecological and economic resiliency and strengthens ecological and human connections within and between the region’s watersheds. The Phase III NCIRWMP is expected to continue the project prioritization process to maximize benefits while minimizing impacts. Benefits from flood management and other programs identified by the state in the new Plan Standards will be considered for greater emphasis in the NCIRWMP, Phase III.

Financing

The NCIRWM planning process is financed from a variety of sources including Proposition 50 grant funding and through local cost-share agreements with the Sonoma County Water Agency, Humboldt County, and other member counties. In late 2008, the PRP directed staff to develop a long-term financing plan that includes a diversity of funding types to ensure the long-term sustainability of the NCIRWMP framework and process into the future. By commissioning reports about alternative group structure and ongoing financing, the PRP is demonstrating that it is grappling with sustainability issues for the future of the NCIRWMP. The group is actively pursuing the development of strategies that will rely upon a diverse funding portfolio and continue to sustain the North Coast effort. With its commitment to achieving multiple objectives through local action, the group is well poised to take advantage of federal, state, local, and private funding sources that may become available. Projects included in the NCIRWMP are likely to qualify for many types of grants and low interest loans – natural resources, fisheries, drinking water, environmental justice, urban renewal, energy efficiency, public health, community development, etc., due to the diversity of conditions in the North Coast. However, the group is not dependent upon grant funding to continue – it was initiated with and continues to benefit from voluntary member contributions.

Since its inception in 2005, financial contributions have not been a requirement of membership in the NCIRWMP, although all members have contributed substantial staff time to the effort. The Region has been fortunate that the Sonoma County Water Agency partially funds the North Coast IRWM planning effort, enabling planning facilitation and proposal development. Funding from the Prop 50 IRWM grant program has enabled regional planning to take place at an elevated level without additional financial contributions from members, however much in-kind resource investment has been provided by different members in the form of staff time and expertise. Additionally, the group has gained efficiency by pooling their resources for administering water management planning at the regional scale. Regional contract management has provided efficiencies to the state and has resulted in the development of templates and tools that can be shared region-wide, thereby allowing the North Coast to spend fewer resources on regional administration.

As part of its adaptive management process, the PRP broadened the scope of the NCIRWMP to include energy independence. The PRP realized that in order to be more effective, the group must address a greater totality of conditions affecting water management in the North Coast. Energy independence and adaptation to climate change were an obvious fit with water management –energy is necessary to treat wastewater and supply water and effects of climate change are very likely to affect available water supply. In response, the PRP created the NC Energy Independence • Emissions Reduction • Job Creation • Climate Adaptation initiative. This initiative resulted in the identification of funding opportunities to address climate change and emissions reduction. Utilizing the existing NCIRWMP framework, grants were submitted to the state Municipal Financing Program (<http://www.northcoastirwmp.net/docs.php?ogid=1000001765>) and Energy Efficiency & Conservation Block Grant (<http://www.northcoastirwmp.net/docs.php?ogid=1000001768>). The goals of these funding opportunities are to optimize energy and water efficiency measures implementation to achieve savings

in support of the State's goal of 40% emissions reduction by 2020 and to create short- and long-term employment and economic development.

The Energy Efficiency & Conservation Block Grant Program is a non-competitive formulaic block grant program designed to provide eligible small cities / counties grant funding to install cost effective energy efficiency retrofits within their jurisdictions. Over the next several years, grant funds will implement over 50 projects throughout the North Coast intended to replace outdated fixtures, machinery, and infrastructure with energy efficient upgrades (lighting retrofits, HVAC replacements and retrofits, furnace replacements, and energy efficient motor/pump replacements). Implementation of these projects is expected to generate an electricity savings of almost 1.75 million kilowatt hours. Cost effectiveness and Energy Conservation thresholds were evaluated at the application level, allowing the grant application to include high-quality projects that may not have met the stringent thresholds stipulated by the state. This is an example of how the NCIRWMP serves to meet state goals and expectations while fulfilling local needs in an equitable manner. Additionally, NCIRWMP staff worked with partner communities to provide technical assistance with the grant application, assist with the development of feasibility studies for each project, and the provision of on-site technical assistance in the form of energy assessments. Currently, the California Energy Commission is working with the County of Humboldt to develop the contract for this grant.

A Municipal Financing grant was awarded to the North Coast but due to national level concerns, grant funding for municipal financing programs was rescinded statewide by the CEC. North Coast counties remain committed to the North Coast Energy Independence Program (NCEIP) and continue to work with the CEC on funding for residential and commercial energy retrofits in each member county.

The success of these financing endeavors is an example of how the NCIRWMP – by evaluating and implementing strategies for diversified and private sector funding – will be able to leverage the investments of DWR and the NCRWMP to achieve meaningful and sustainable integrated water management goals for the North Coast region. In addition, implementation of these alternative grants will substantially inform new sections in the NCIRWM Plan related to climate change adaptation, mitigation, GHG emissions reduction and energy independence to meet new IRWM Plan Standards. These strategies for obtaining project-level and ongoing financing for the NCIRWMP will be included in the Phase III NCIRWMP in order to formalize the NCIRWMP financing process and to conform with requirements in the 2010 IRWM Program Plan Standards.

11. Describe how the NCIRWM Plan currently meets or will be updated to meet the current IRWM Plan standards

Recommendations for future iterations of the plan have been considered on a continuous basis, leading to such developments as the NCIRWMP Regional Strategy for Small Disadvantaged Water and Wastewater Providers, the integration of sub regional ICWMPS, and the North Coast Energy Independence Program. Most of these efforts have been identified through stakeholder input.

The project team revised the Phase I plan to include information related to Integrated Coastal Watershed Management Planning and those Priority Projects that implemented Integrated Coastal Watershed Management Plans. The five ICWMP processes underway in the North Coast region include planning processes in Trinidad, the Mattole River watershed, the Russian River watershed, the Noyo/Big River watersheds, and the Salmon Creek watershed. All of the ICWMPs in the North Coast region strongly emphasize a programmatic approach to reducing pollution in impaired waters and sensitive habitat areas and have specific objectives that are related to reducing pollution into sensitive/impaired habitats, including the Critical Coastal Areas (CCAs), Marine Protected Areas (MPAs) and Areas of Special Biological Significance (ASBS).

The NCIRWMP project team is in the process of making additional revisions to the Phase II plan and planning processes, including adding sections on failing infrastructure, climate change, data management, land use, coastal issues, as well as updated sections on regional planning and data gaps. Review of these revisions has occurred at regular intervals as they have been developed.

The NCIRWMP *Regional Strategy for Small Disadvantaged Water and Wastewater Providers* was developed in November 2009 to address NCIRWMP objectives to protect and enhance drinking water quality and address environmental justice issues related to disadvantaged communities. The strategy will be revised to reflect current conditions and then be integrated into the next version of the NCIRWMP Plan. When complete, it will be a cutting-edge demonstration initiative that can be exported to other disadvantaged communities in California.

The NCIRWMP *Energy Independence, Emissions Reduction, Job Creation, and Climate Adaptation Initiative* will also be revised to reflect current information and utilized to inform sections of the Phase III plan. The program contains a preliminary list of strategies to address energy independence, GHG emission reduction, and climate change adaptation derived from stakeholder meetings in the region; these will be reviewed and enhanced for the Phase III plan. The Phase III plan will acknowledge the relationship between water and energy, the relationship between local energy generation and local economic development and the nexus between greenhouse gas emissions and watershed management and further develop these topics as they relate to North Coast issues.

Proposed planning elements in need of funding that will inform and be integrated into the Phase III Plan include the Data Management Plan, Planning Synthesis Report, a Flood and Stormwater Management Report, a Climate Change Mitigation, Adaptation and Energy Independence report, a Land Use and Regional Planning Report, and North Coast Groundwater Monitoring Strategies report and planning model that includes SBx7-6 compliance tools/templates. In addition, the NCIRWMP Phase III will be updated throughout to reflect on-going and enhanced planning activities and integration of tribal water management, cultural values and expertise.

The Data Management Plan (DMP) was developed as part of a process intended to result in more efficient, effective, standardized data acquisition, input, analysis, and dissemination throughout the Region. The North Coast DMP, when it is fully realized, will satisfy the need for a regional data management system that is fully compatible with ongoing and newly-emerging state systems and is

streamlined and easy to use. The DMP will also fulfill the need for a region-specific framework to objectively assess and improve, through an adaptive management process, the performance of the North Coast IRWM Plan, its implementation projects, and potentially other regional water-related management activities.

The Planning Synthesis Report (PSR) evaluates documents related to water and watershed management planning efforts in the region and identifies data gaps. For the future phases of the NCIRWM plan, further evaluation of existing documents and compilation of new planning documents will be undertaken. This effort is expected to fill some of the data gaps identified in the PSR; those areas where data gaps remain will then be prioritized for assessment.

The North Coast Groundwater Monitoring Strategies report will synthesize the regional groundwater monitoring needs assessment based on SBx7.6 and CASGEM requirements. The report will include target groundwater basins, existing elevation monitoring data and programs, data gaps, proposed and potential monitoring locations, proposed data collection frequency, proposed protocols, estimated costs and potential strategies for CASGEM compliance. The Santa Rosa Plain Groundwater Management Plan will provide a pilot project that establishes a non-regulatory planning process that results in active local control and groundwater resources management to meet existing and future water demands. While addressing long-term drought preparedness and contributing to a sustainable water supply, the pilot planning process will also demonstrate an effective linkage between water management and land use planning that promotes long-term groundwater basin viability.

The Flood and Stormwater Management Report will evaluate opportunities for integration of flood and stormwater management strategies into a watershed-based planning framework, seeking mechanisms to achieve the public safety and public health goals of flood and stormwater management while protecting and enhancing watersheds and ecosystems. The report is expected to include a regional assessment of storm and flood management issues, challenges and opportunities, and will evaluate options for riparian and floodplain management enhancement, conservation easements and source watershed protection as a mechanism to reduce downstream flooding and non-point source pollution, education and outreach regarding voluntary BMPs to reduce sedimentation and NPS pollution, evaluation of the opportunities for LID standards to be applied to new and existing infrastructure, and other strategies determined to be relevant. All elements of the report will integrate information from other Phase III planning reports and will be seamlessly incorporated into the NCIRWMP Phase III.

Climate change is widely acknowledged as a reality that will affect all aspects of life in the 21st century. In recognition of this fact, the NCIRWMP has begun exploring how climate change is expected to affect Northern California, potential responses to these impacts, and state actions toward greenhouse gas (GHG) emissions reduction. The NCIRWMP commissioned two reports which are included in the Proposition 50 Planning Grant Final Report (*Appendix 2, North Coast Climate Change – Issues and Initiatives and Appendix 31, Climate Change and Agriculture in the North Coast of California*) that investigate these issues in-depth. *Climate Change – Issues and Initiatives* provides an overview of expected changes to weather and climate in Northern California; these changes include rising sea levels, increased incidence of droughts, rising temperatures, changes in storm patterns, and reductions in

summer water supplies. Response initiatives developed at the state level include Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, which requires reducing state GHG gas emissions to 1990 levels by 2020, Executive Order S-3-05, which set preliminary targets for reducing greenhouse gas emissions, and the Western Climate Initiative, a group of western states whose purpose is to facilitate collaboration in identifying, valuating, implementing and realizing co-benefits from actions to reduce GHG emissions. *Climate Change and Agriculture in the North Coast of California* identifies project-level agricultural BMPs that will reduce GHG emissions and increase soil carbon sequestration and economic incentives and policy specific to agriculture. Both reports, along with the abundance of technical and policy information provided by the state's *California Climate Change Portal* and other resources, will be utilized to develop a chapter on climate change mitigation, adaptation and energy independence during the development of the Phase III Plan to inform the plan's climate change strategy and further develop the NCEIP. In addition, tools and templates will be developed for GHG emissions estimation and analysis at the local and project level for identification of potential project implementation impacts and benefits.

The Land Use and Regional Planning Report will summarize the status of local land use planning and identify a process and priorities for enhanced integration of the NCIRWMP with local land use planning, and methods by which the NCIRWMP can support and add value to local land use planning efforts. The report will also describe water management projects that are compatible with existing and planned land use designations; describe the current relationship between land use and water planning; and describe the model planning elements developed in collaboration with local planning agencies and the NCIRWMP.

The NCIRWMP truly is an example of a "living document" created through an adaptive management process. The "Phase II" plan, adopted in 2007, meets the Proposition 50, IRWM Program Plan standards. The ongoing development of the plan demonstrates the commitment of the NCIRWMP to the intent of the IRWMP process and an adaptive management strategy – the PRP continuously evaluates plan content and process in light of the challenges and opportunities facing the North Coast region. In this way, the plan will remain relevant and continue to meet local and regional needs while contributing towards the attainment of state goals.

The NCIRWMP Phase III will include a number of new sections that fill data gaps, as well as considerable revisions to existing sections. Outreach and coordination with tribal entities and program staff will enable integration of new sections and updates to the Phase III Plan that describe tribal lands, water management, natural resource concerns and priorities, cultural values and tribal knowledge. Following is a table that lists how the NCIRWM Plan currently meets or will be updated to meet the current IRWM Plan standards.

Table 3. Current NCIRWM Plan status and proposed Phase III section updates in relation to the Proposition 84/1E Plan Standards

IRWM Plan Standards	NCIRWM Plan Phase II Section	Proposed NCIRWM Plan Phase III Updates
Governance	Section 1	<p>Governance processes to update:</p> <ul style="list-style-type: none"> • Governance structure • MoMU and signatories • Project inclusion in plan • Amendments and updates • NCIRWM Plan re-adoption • Update throughout NCIRWM Plan • Process for Tribal Inclusion
Region Description	Section 3	<p>Update:</p> <ul style="list-style-type: none"> • Identification of water systems & water management entities • Water supply and demand projections • Demographics & DAC identification based on 2010 census • Major water-related objectives and conflicts • Clarification and description of potential boundary differences between water and energy efforts (watershed/county)
Objectives	Section 2 & 9	<p>Update: on-going process description to identify regional objectives and goals</p> <p>New:</p> <ul style="list-style-type: none"> • Develop metrics to measure objectives • Objective prioritization
Resource Management Strategies	Section 4	<p>Updates to include information from NCIRWMP reports/programs:</p> <ul style="list-style-type: none"> • North Coast Region Planning Effort Synthesis Report, NCIRWMP Phase I & II Data Gaps and Proposed Measures to Address Them • Protection of Drinking Water in North Coast Communities • NCIRWMP Energy Independence: Emissions Reduction, Job Creation, Climate Adaptation • Climate Change and Agriculture in the North Coast • Climate Change – Issues and Initiatives • North Coast 2007 Conference Stakeholder Input Summary <p>New local and regional resource management strategies:</p> <ul style="list-style-type: none"> • Develop framework to address new Resource Management Strategies as defined in the California Water Plan, including: <ul style="list-style-type: none"> ○ Agricultural and urban water demand reduction strategies ○ Resources Stewardship strategies ○ Other Strategies, such as fog collection and rainfed agriculture • Groundwater basin elevation monitoring • Climate change adaptation/mitigation

IRWM Plan Standards	NCIRWM Plan Phase II Section	Proposed NCIRWM Plan Phase III Updates
		<ul style="list-style-type: none"> Flood and stormwater management Tribal collaboration strategies North Coast IRWMP Regional Strategy for Small Disadvantaged Water and Wastewater Providers
Integration	Section 6, 7, 8, 9	Update throughout NCIRWM Plan with respect to plan objectives, targets, data, stakeholders, resources, and project review, prioritization, and implementation. Integrate all new plan chapters and initiatives, including climate change, flood/stormwater, groundwater, and land use planning
Project Review Process	Section 6 & 7	Update and formalize process: <ul style="list-style-type: none"> Procedure for project inclusion in NCIRWMP project review and updating of project lists Review criteria and factors Publicizing list of NCIRWM projects and Priority Projects Procedures for prioritizing and implementing new projects after Phase III Plan adoption
Impact and Benefits	Section 8 & 9	Update: <ul style="list-style-type: none"> Impacts/ benefits from Prop 50 implementation projects Impacts/ benefits to DACs and sensitive habitats Regional impacts/ benefits New: <ul style="list-style-type: none"> Technical analysis Local and regional impacts / benefits qualitative and quantitative indicators Monetization Method for determining relative degree of impact/benefit Integration of impact and benefit analysis
Plan Performance and Monitoring	Section 9	Update: <ul style="list-style-type: none"> North Coast Region Planning Effort Synthesis Report, NCIRWMP Phase I & II Data Gaps and Proposed Measures to Addresses Them NCIRWMP Data Management Plan Project implementation monitoring New: <ul style="list-style-type: none"> Plan performance monitoring methodology (who, how & frequency) NCIRWMP Data Management System (DMS) web portal development/ maintenance Analysis, synthesis and reporting of findings Integration of “lessons learned” into adaptive management framework Identification of entity responsible for development of project-

IRWM Plan Standards	NCIRWM Plan Phase II Section	Proposed NCIRWM Plan Phase III Updates
		specific monitoring plans, the stage of project development at which they will be prepared and the contents required for such plans
Data Management	Section 9	<p>Update:</p> <ul style="list-style-type: none"> • NCIRWMP Data Management Plan • Project implementation monitoring data • Data gaps & methods to fill gaps • Monitoring & assessment protocols • Monitoring & assessment educational materials • NCIRWMP GIS <p>New:</p> <ul style="list-style-type: none"> • NCIRWMP Data Management System (DMS) web portal development/ maintenance • Data output to statewide DMS and data clearinghouses
Finance	New, Sections 1 & 6	<p>Update:</p> <ul style="list-style-type: none"> • A Review of Economic and Financial Issues for the NCIRWMP • Funding opportunities identification • Description of governance process by which funding sources will be considered and adopted <p>New:</p> <ul style="list-style-type: none"> • NCIRWMP Financing Plan (5-10 year plan)
Technical Analysis	New	<p>Update:</p> <ul style="list-style-type: none"> • Data gaps & methods to fill gaps • NCIRWMP GIS <p>New:</p> <ul style="list-style-type: none"> • Identify & synthesize technical information sources, studies, models, data & analyses
Relation to Local Water Planning	New; Section 1	<p>Update:</p> <ul style="list-style-type: none"> • North Coast Region Planning Effort Synthesis Report • Appendix B – Existing Water and Watershed Management Plans & Programs, Appendix E – Summary of Current Status of TMDL Development and Implementation, Appendix H – Matrix of Existing Water Management Planning Efforts <p>New:</p> <ul style="list-style-type: none"> • North Coast Floodwater/Stormwater Management Plan • Regional groundwater monitoring needs assessment, planning and outreach • Sonoma County Groundwater Management Plan Demonstration Project • Current and projected future relationships between local land use planning entities and water management entities

IRWM Plan Standards	NCIRWM Plan Phase II Section	Proposed NCIRWM Plan Phase III Updates
Relation to Local Land Use Planning	New; Section 1	<p>Update:</p> <ul style="list-style-type: none"> • North Coast Region Planning Effort Synthesis Report • General Plan templates & process • Appendix B – Existing Water and Watershed Management Plans & Programs and Appendix H – Matrix of Existing Water Management Planning Efforts <p>New:</p> <ul style="list-style-type: none"> • Multi-objective Planning Frameworks • North Coast Climate Mitigation/Adaptation/ Energy Independence • Local Land Use and Regional Planning • Current and projected future relationships between local land use planning entities and water management entities (including integration of the Ahwahnee Principles)
Stakeholder Involvement	Sections 1, 4, 6	<p>Update and maintain:</p> <ul style="list-style-type: none"> • Stakeholders composition and process used to identify • NCIRWMP Collaborative Framework • Stakeholder outreach & involvement • NCIRWMP Governance Support • Public Relations and Agency Coordination • Workshops and Conference • NCIRWMP Website & Communication Tools <p>New:</p> <ul style="list-style-type: none"> • Tribal Integration and Planning
Coordination	Section 6	<p>Update and maintain:</p> <ul style="list-style-type: none"> • NCIRWMP Collaborative Framework • Stakeholder outreach & involvement • NCIRWMP Governance Support • Public Relations and Agency Coordination • Workshops and Conference • NCIRWMP Website & Communication Tools • Mechanisms in place to encourage a broad spectrum of support and involvement from stakeholders <p>New:</p> <ul style="list-style-type: none"> • Tribal Integration and Planning • Coordination with neighboring IRWM Regions
Climate Change	New; Sections 2, 3, 4, 9	<p>Update:</p> <ul style="list-style-type: none"> • NCIRWMP Energy Independence: Emissions Reduction, Job Creation, Climate Adaptation • Climate Change and Agriculture in the North Coast • Climate Change – Issues and Initiatives

IRWM Plan Standards	NCIRWM Plan Phase II Section	Proposed NCIRWM Plan Phase III Updates
		<ul style="list-style-type: none"> Plan Objectives to consider climate change adaptation strategies <p>New:</p> <ul style="list-style-type: none"> Identify & synthesize legislative processes Identify and evaluate water management systems' adaptability to climate change Description and consideration of the effects of climate change: Identify and evaluate regional climate change impacts and vulnerabilities Regional Management Strategies to respond to climate change: <ul style="list-style-type: none"> Provide education, outreach and technical assistance related to climate change mitigation and adaptation Carbon sequestration strategies via sustainable forestry and watershed conservation Integrated biomass energy generation strategies Emissions reductions strategies related to water conveyance, water conservation, wastewater processing Strategies for building retrofit programs, municipal financing & alternative energy generation Climate adaptation strategies that integrate ecosystem resiliency with human community resiliency & DACs Identify and evaluate regional climate change impacts and vulnerabilities Develop template of GHG emissions for project proponents Revisions to project review process to include climate change adaptation and GHG reduction Consideration and incorporation of local water and land use planning climate change adaptation strategies into NCIRWMP Coordination with state agencies including CA Natural Resources Agency and the California Climate Action Registry Inclusion of climate change considerations for adaptive management responses and plan performance and monitoring

North Coast Integrated Regional Water Management Plan, Phase III Proposition 84 IRWM Planning Grant, Round 1

Attachment 3. Work Plan

Content Section

Task 1. Governance, Stakeholder Involvement and Coordination

This task will comprise of a number of sub-tasks that together will facilitate stakeholder participation and input in the North Coast Integrated Regional Water Management Plan (NCIRWMP) and processes; provide support for the NCIRWMP governance structure; and maintain and enhance the NCIRWMP collaborative framework. These subtasks include:

- NCIRWMP Governance Support
- Public Relations and Agency Coordination
- Stakeholder Outreach and Meetings
- Regional Strategy for Small Disadvantaged Water and Wastewater Providers
- Tribal Outreach, Integration and Planning
- Workshops and Conference
- Maintain & Enhance NCIRWMP Website and Communication Tools

Task 1.1 NCIRWMP Governance Support

This task will provide for ongoing input and oversight from the NCIRWMP Policy Review Panel (PRP), technical evaluation by the Technical Peer Review Committee (TPRC), and input from stakeholders in the North Coast Region to support the ongoing development and refinement of the North Coast Integrated Regional Water Management Plan (NCIRWMP) and processes, including evaluating and updating planning objectives and resources management strategies and the integration thereof; evaluating and updating plan performance, technical information, data management and monitoring approaches; evaluating, updating the water quality/water supply needs in the North Coast including disadvantaged and tribal communities; and identifying and prioritizing integrated projects that have multiple benefits and that respond to community needs, regional goals and objectives and statewide priorities.

Task 1.1.1 Continue to coordinate and convene the NCIRWMP PRP and TPRC on a quarterly or bi-annual basis for NCIRWMP Phase III plan review, issues and data analysis, project review, prioritization and inclusion, review and updating of regional objectives, and enhancements to the planning process. All meetings will be noticed, open to the public and encourage stakeholder participation in the process.

Task 1.1.2 Provide support to the NCIRWMP PRP and TPRC to update the governance structure, processes and mechanisms including, but not limited to:

- NCIRWM planning and decision-making processes review and revision
- Formal governance document updates
- Plan review, amendment and formal adoption
- Coordination with neighboring IRWM efforts, State and Federal agencies
- Technical committee and sub-committee development and interaction, including defining member roles and responsibilities
- Long-term implementation of the NCIRWM Plan

Task 1.1.3 Perform ongoing surveys of PRP, TPRC, sub-committees and regional policy stakeholders to evaluate the planning process, regional objectives, opportunity for balanced participation, and identification of relevant trends.

Task 1.1.4 Review and update the NCIRWM Plan Objectives focused on relevant North Coast water management to enhance beneficial uses, adapt/mitigate for climate change, and promote regional equity and cooperation. Discuss and prioritize Plan Objectives to create objective and goal hierarchy. Identify appropriate quantitative and qualitative metrics to measure the extent to which objectives are being met. Update the NCIRWM Plan Objectives section to describe the collaborative process and tools used to establish and refine the objectives.

Task 1.1.5 Document and develop amended NCIRWM Plan sections that describe the new and revised NCIRWM planning process including, but not limited to, governance structures, processes and mechanisms; project review, prioritization and inclusion process (see Task 2); and other enhancements.

Deliverables: PRP and TPRC meeting schedule, agendas and meeting minutes; documentation of updates and input from e-mail and web communication; summary of interview data and list of interviewees; list of prioritized NCIRWMP Objectives; list of measurable objective metrics; revised NCIRWM Plan Objectives section; amended NCIRWM Plan sections: Development Process for the NCIRWMP and NCIRWMP Proposed Projects and Project Priorities.

Task 1.2 Public Relations and Agency Coordination

This task will continue to provide agency and NCIRWM partner coordination to identify opportunities for cooperation, avoid conflict and promote efficiencies of project and program activities in the North Coast region. Public relation presentations and outreach to neighboring IRWM regions and agencies at the state and federal level will inform NCIRWM Plan updates and enhance understanding, effective cooperation and integration of resource management strategies.

Task 1.2.1 Develop and provide presentations to and attend meetings with North Coast IRWM partners and agencies to enhance and inform inter and intra regional collaboration, and to solicit information for plan updates.

Task 1.2.2 Coordinate individual and small group meetings with key agency personnel, representatives of local government, business, non-governmental organizations, timber companies, utilities, universities, flood management agencies, disadvantaged communities, agriculture, and tribal

interests in the NCIRWMP planning area. Possible key agencies include, but are not limited to, North Coast Regional Water Quality Control Board, California Department of Water Resources, California Department of Fish and Game, State Coastal Conservancy, California State Coastal Commission, California Department of Parks and Recreation, the Resources Agency, California Geologic Survey, Department of Conservation, NOAA Fisheries, EPA, California Energy Commission, US Department of Energy, USGS, and NRCS. Solicit input from these groups regarding the NCIRWMP planning process and how their priorities can be better reflected in the NCIRWMP.

Task 1.2.3 In conjunction with regional agencies, review and identify California Water Plan Resource Management Strategies activities appropriate to the North Coast region. Identify opportunities for integration of resource management strategies, (including climate change adaptation strategies), towards maximizing and diversifying the region's water management portfolio. Develop a Plan section that describes these integrated resource management strategies, their relationships and potential synergies and where NCIRWMP Priority Projects would help to implement and address these needs.

Deliverables: Powerpoint presentations and background materials; agendas and reports summarizing meetings with local communities, agencies, regional stakeholders and neighboring IRWM Planning entities; new NCIRWMP Resource Management Strategies section

Task 1.3 Stakeholder Involvement, Outreach and Meetings

Key to the effectiveness of the NCIRWM Planning effort is meaningful and equitable stakeholder involvement. To this end this task will provide outreach and an opportunity to participate in the NCIRWM Plan development and implementation to a wide variety of regional stakeholders, including targeted outreach to new stakeholders, economically disadvantaged communities (DACs) and tribal entities. Existing outreach and communication mechanisms and venues will be maintained, improved and new mechanisms employed.

Task 1.3.1 Hold on-going stakeholder meetings/workshops throughout the region to educate stakeholders regarding IRWM statewide priorities and to receive input regarding regional objectives; to provide information and technical assistance regarding Proposition 84 & 1E IRWM, North Coast Energy Independence and other funding opportunities; to obtain input from partners and interested public regarding NCIRWMP Phase III revisions and enhancements; and to identify issues of concern and project priorities. Identify and reach out to DACs and their representatives to ensure and facilitate opportunities for participation.

Task 1.3.2 Provide regular updates and solicit input via the website and e-mail to all interested parties regarding NCIRWMP Phase III issues, data, revisions, enhancements and project priorities.

Task 1.3.3 Identify new stakeholder groups, enhance and maintain collaboration among watershed groups and water and wastewater service providers at the local level including agencies, municipal and county governments, special districts, electrical corporations, Native American tribes, self-supplied water users, environmental stewardship, state, federal, regional agencies, universities, community and industrial organizations and disadvantaged community representatives .

Task 1.3.4 Perform targeted outreach to underserved and economically disadvantaged communities.

Task 1.3.5 Conduct ongoing surveys to document, analyze and evaluate input from all stakeholders and participants.

Deliverables: Workshop schedules, agendas and presentations; documentation of updates and input from e-mail and web communication; summary and evaluation of stakeholder input; stakeholder lists and contact information including underserved and economically disadvantaged communities and tribes; summary of interview data and list of interviewees.

Task 1.4 Regional Strategy for Small Disadvantaged Water and Wastewater Providers

With directed funding from the Department of Water Resources (DWR) the NCIRWMP Regional Strategy for Small Disadvantaged Water and Wastewater Providers will coordinate with the NCIRWMP PRP and TPRC, local government agencies, special districts, tribal governments, and private/mutual water/wastewater companies involved in the provision of domestic water or wastewater services to develop a regional working group or up to three integrated working groups within the region. The working group(s) will be formed and dedicated to improving the capacity and quality of service of small water and wastewater services providers in the North Coast region through coordination, technical assistance, trainings, integrated planning, funding opportunity identification and education.

Task 1.4.1 These tasks are covered in a DWR pilot grant and will include: coordination with local Interests to form water supply and waste water (WSWW) working group(s); build capacity of WSWW providers; convene workshops and trainings; develop WSWW provider strategies; coordinate and target funding opportunities; identify projects for inclusion in the NCIRWMP; form regulatory liaison sub-committee; develop long-term WSWW funding strategy; develop exportable components for DWR to be used in disadvantaged communities throughout California.

Deliverables: Covered in Regional Strategy for Small Disadvantaged Water and Wastewater Providers contract with DWR.

Task 1.5 Tribal Outreach, Integration and Planning

This task will build upon and enhance the existing tribal outreach and engagement process to include tribal updates to the NCIRWMP planning process, provide technical support to identify and develop integrated water management project proposals on tribal lands, and support targeted outreach to North Coast tribes and facilitate tribal stakeholder representation in the NCIRWM planning and implementation processes.

Task 1.5.1 Facilitate overall collaboration, engagement, and coordination between and among North Coast tribes, NCIRWMP staff, PRP, TPRC, DWR, stakeholders, supporting organizations and other relevant government agencies through telephone and email communication, interviews, meetings, quarterly workshops, Tribal Council presentations, website content development, and educational

materials development. This task will also assist the tribal representation selection process to ensure access and opportunity for tribal representatives to fully participate in the NCIRWM planning process.

Deliverables: Contact list of all North Coast Tribes and a description of level of interest in the NCIRWMP; documentation of updates and input from telephone and web communication; summary of interview data and list of interviewees; workshop schedules, agendas and presentations; summary and evaluation of stakeholder input; tribal fact sheets and other informational materials; website updates to NCIRWMP regarding tribal issues and information

Task 1.6 Workshops and Conference

This task will result in interactive, facilitated workshops and a regional conference focused on refining the list of issues relevant to integrated regional water management planning in the North Coast Region and to receive input about the NCIRWM Plan and processes. All stakeholders will be invited to participate – including, but not limited to, the NCIRWMP PRP, TPRC, MoMU signatories, counties, cities, service districts, tribes and tribal organizations, landowner groups, watershed groups, non-profits and other interested public. The workshops will focus on energy independence and climate mitigation/adaptation, small wastewater/water supply needs, trainings and funding opportunities. Specific issues to be addressed and outcomes to be achieved during the conference include:

- Retrospective and status of the NCIRWMP
- Current opportunities: funding and strategic
- Update and advice from key legislators on future opportunities
- Featured projects completed or in progress
- Incorporation of new elements required under Proposition 84 and 1E, including stormwater and flood management, energy and climate change, and land use planning.
- Regulatory compliance measures and information including, but not limited to SBx7-6, AB1420, AB32, Urban Water Management Planning updates and Water Conservation Law Compliance
- New federal partners – NOAA, EPA, USFS, NRCS, DOE
- Interactive sessions to invite stakeholder input on the direction of the NCIRWMP

The conference will provide information to enhance the NCIRWMP Phase III draft plan, and will also serve to educate the stakeholders and the public – in a large group setting – about statewide priorities, regional and local planning objectives, and the diversity of issues and needs in the Region. We expect to invite state, local and federal elected officials and decision makers to the conference to both provide and receive input about the North Coast IRWMP.

Task 1.6.1 Plan and convene 9 – 15 technical workshops throughout the North Coast region tailored to the workshop topic and geographic region. Workshop topics may include, but are not limited to, biomass energy, climate change, groundwater monitoring, flood and stormwater management, integration of NCIRWMP into local land use planning. Workshops will provide sessions on technologies and activities relevant to the North Coast, current challenges associated with permitting and environmental compliance, disadvantaged community strategies, funding opportunities, integration of

NCIRWMP objectives (salmonid viability, watershed quality and supply, economic development) and interactive sessions to determine the needs and project priorities of North Coast communities.

Task 1.6.2 Evaluate and develop tele-conferencing and/or webinar capacity to ensure the option for remote stakeholder engagement and the reduction in greenhouse gas (GHG) emissions related to travel across a large region.

Task 1.6.3 Plan and convene a facilitated North Coast IRWMP stakeholder conference in the Region focusing on educating regional stakeholders about the North Coast IRWMP process and refining the list of issues relevant to IRWM planning in the North Coast Region Plan and schedule a “town hall” interactive conference to gather targeted input from interested stakeholders.

Task 1.6.4 Document and evaluate input from stakeholders and participants

Deliverables: Workshop schedules, agendas and presentations; list of tele-conferencing options and/or webinar system in place for meetings, workshops, conference; North Coast conference plan, agenda and participant list; summary and evaluation of stakeholder input; list of regional tele-conferencing options and/or webinar system in place for meetings, workshops, conference

Task 1.7 Maintain & Enhance NCIRWMP Website and Communication Tools

The NCIRWMP website <http://northcoastirwmp.net/> currently serves as a communication portal regarding Integrated Regional Water Management Planning for the North Coast Region. The website provides data regarding statewide priorities and processes, data management and monitoring protocols, a calendar of events and deadlines, a spatial map of identified projects, a library and contact information to enhance communication from the Region. In addition, the NCIRWMP Project Management tool will be maintained and updated to provide electronic reporting procedures and materials approved by state administrators to gain regional efficiencies and reduce paper generation. This task will maintain the site during Phase III of the NCIRWM planning process, and enhance the communication tools and internet mapping capabilities on the site to allow for more robust interaction among partners and stakeholders in the Region, as well as more advanced data display, input and analysis. Additional content will be added and is expected to include local planning documents, assessment and monitoring protocols, additional bibliographic resources, maps, presentations, and other educational elements.

Task 1.7.1 Maintain the NCIRWMP website. On an ongoing basis, maintain and enhance website functionality and content with interactive communication tools and internet mapping capabilities for dissemination of information and data analysis. Maintain and enhance the communication and NCIRWMP Project Management tools on the website.

Task 1.7.2 Enhance MapServer Internet Mapping Application functionality and content by adding new data layers at the direction of TPRC and subcommittees to include, but not be limited to, floodwater, water supply, wastewater districts and jurisdiction; climate change adaptation/mitigation projects and opportunities; climate change impacts; tribal territories; updated DAC layer; and others

Task 1.7.3 Update and add new content to the website, including local planning documents, technical documents, assessment and monitoring protocols, North Coast news, regional events, calendar information, media, bibliographic resources, and maps. Enhance existing website pages to include information that is required to be addressed by Proposition 84, Proposition 1E and other state and federal funding programs. This information will include, but not be limited to, emerging legislation, stormwater and floodwater management, land use, climate mitigation and adaptation information.

Task 1.7.4 Develop new website content related to tribal lands, water-related concerns and opportunities, and tribal expertise including, but not limited to, fact sheets, educational materials, tribal water priorities, and information that support tribal water management and fisheries recovery practices.

Task 1.7.5 Develop interactive web portals to disseminate data and metadata and collect data from stakeholders for NCIRWM plan performance and monitoring data

Deliverables: Improved and maintained website including NCIRWMP Project Management web-portal and tool; minimum of ten new data layers for internet mapping application; at least fifty new content items, including plans, technical documents, maps, etc.; website updates regarding North Coast news, regional events, calendar information, media, funding opportunities; published written reports and bulletins developed by the NCIRWM planning process uploaded to the website; new tribal web content; new data web portals to upload and disseminate monitoring data to the public and state-wide data clearinghouses

Task 2. Project Review Process

Using the NCIRWMP website, and an updated template derived from the State's IRWM Program Guidelines and PSPs as well as user input from Phase I & II, provide project proponents an opportunity to upload integrated regional water management projects. Develop an alternative submittal process for those users who cannot upload via the website. Identify where technical assistance is needed and provide technical assistance to project proponents during grant applications and planning processes to ensure that individual project proposals are competitive and responsive to state criteria and requirements.

Working collaboratively with regional partners the NCRWMG will develop NCIRWMP grant applications that address NCIRWMP goals and objectives, local and regional integrated water and resource management needs and State's Resource Management Strategies while meeting the criteria defined by federal, state and/or private grant funding opportunities.

Task 2.1 Solicit & Evaluate Projects from North Coast Region

Task 2.1.1 Update website upload template as needed based on State programmatic changes, revisions to regional priorities and user input.

Task 2.1.2 Create hard copy versions of website upload forms for dissemination to non-internet users

Task 2.1.3 Develop project prioritization criteria based on IRWM program preferences, statewide priorities, Resource Management Strategies, and climate change adaptation/mitigation integrated with regional and local priorities and NCIRWMP objectives

Task 2.1.4 Coordinate TPRC NCIRWM project ranking and PRP review and Priority Project approval.

Task 2.1.5 Develop cost, impact and benefit analysis of NCIRWM Priority Projects

Task 2.1.6 Document and update the NCIRWM Plan with a description of a formal process for project review, ranking and inclusion in the NCIRWM Plan.

Deliverables: Updated website project upload template, incorporating user input and updated statewide priorities and regional objectives; templates and tools to assist project proponents during the application processes to ensure that individual project proposals are consistent, and competitively address application criteria and state requirements; hard copy project forms available to non-internet users via workshops, meetings, collaborators; project prioritization criteria and TPRC ranking forms; list of NCIRWMP projects; list of NCIRWMP Priority Projects; cost/benefit analysis of Priority Projects; updated NCIRWM Plan section: NCIRWMP Proposed Projects and Project Priorities

Task 2.2 Technical Assistance

Task 2.2.1 Provide technical assistance to up to 10-30 tribes, disadvantaged communities, and other stakeholders in need. Technical assistance may include, but not be limited to, compliance with state monitoring protocols and recording requirements, CEQA/NEPA compliance, Native American Tribe Notification, Project Assessment and Evaluation Plan (PAEP) development, economic cost/benefit analysis, engineering review and approval, detailed GIS analysis, and map production.

Task 2.2.2 Assist with identification of potential projects and feasibility assessment to address critical water-related projects in economically disadvantaged and tribal communities that promote integrated and collaborative projects between tribes and adjacent communities.

Task 2.2.3 Provide support, tools and capacity building mechanisms necessary to develop tribal and DAC projects that are competitive for local, regional, and statewide funding.

Deliverables: List of project proponents (including disadvantaged communities and tribal groups) in need of assistance and documentation of technical assistance provided; templates and tools to assist project proponents during the application processes to ensure that individual project proposals are consistent, and competitively address application criteria and state requirements

Task 3 Economic Vitality and Long Term Financing

This task will a) evaluate the current financial state of the NCIRWMP, including existing funding sources and the financial requirements to maintain the functional processes of the NCIRWMP; b) will evaluate current finance options that augment current sources of funding, and c) will evaluate longer term sources of diversified funding that will support the long term financial stability of the NCIRWMP.

Task 3.1 Evaluate Current Financial Needs of NCIRWMP

Task 3.1.1 Evaluate and document the financial requirements for maintaining the functions and processes of the NCIRWMP over the last five years, with information broken down into categories including plan development and refinement, project identification and ranking, technical assistance, stakeholder outreach and education, data analysis and dissemination, project and contract management, etc.

Task 3.1.2 Identify appropriate funding opportunities for integrated, regional and consolidated NCIRWMP grants that align with NCIRWM Plan objectives and priorities, including projects and programs that will benefit economically disadvantaged communities and tribal interests

Task 3.1.3 Identify potential funding opportunities and financing mechanisms to address critical water-related projects in economically disadvantaged and tribal communities

Deliverables: Evaluation summary of financial requirements for maintaining the NCIRWMP; List of North Coast funding opportunities and financing mechanisms

Task 3.2 Financing Plan (10 year plan)

A NCIRWMP Financing Plan will be developed that outlines a strategy for long-term funding of the NCIRWMP – both for ongoing adaptive management planning and for the implementation of projects and programs. The financing plan will have a 10-year planning horizon and identify diverse funding sources, including local, state, federal and fee-for-service opportunities.

Task 3.2.1 Develop list of potential financing options and structures including, but not limited to, grants, loans, operating funds, ratepayers, assessments, bonds

Task 3.2.2 Investigate and document North Coast sub-regional ability, capacity and potential sources of funding for Operation and Maintenance (O&M) of NCIRWM projects

Task 3.2.3 Review list with NCIRWMP PRP, TPRC, elected officials, decision-makers, and relevant stakeholders

Task 3.2.4 Develop Financing Plan in conjunction with economic experts from throughout the region and state

Task 3.2.5 Conduct review and finalize Financing Plan

Deliverables: List of potential financing options and structures; summary of options and capacity for funding O&M of NCIRWM projects; summary of Financing Plan review; Financing Plan (10 year plan)

Task 4. Technical Analysis

The Technical Analysis task will document the technical information, analyses and methods used to determine the water and resource needs and planning objectives in the North Coast region over a planning horizon of at least twenty years. The technical documents will be summarized and analyzed

with the intention of evaluating integration of management strategies, evaluating assessment and monitoring efforts and adherence to statewide protocols.

The NCIRWMP spatially referenced database and GIS serves as a tool for the evaluation of data and issues, integration and coordination of projects, graphically depicts the geographic range and diversity of IRWMP projects, and allows agencies and other users to evaluate and query projects and identify geographic areas in need of protection and improvement. Evaluation factors might include watershed/jurisdictional boundary, type of project, disadvantaged community status, critical tribal areas, sensitive habitats, protected lands or impaired waterbodies. Relevant GIS data for the North Coast Region will be clipped to the regional boundaries, re-projected, compiled in one location and analyzed based on the data needs of the PRP and TPRC. All non-proprietary data layers will be made available to the public upon request via DVD.

Task 4.1 Identify, Compile and Synthesize relevant North Coast technical documents and processes

Task 4.1.1 List and briefly describe the technical information sources, studies, models, data sets and analyses used to develop regional management strategies and NCIRWMP objectives

Task 4.1.2 Identify data gaps where additional monitoring or studies are needed and evaluate options to bridge or develop these data needs

Task 4.1.3 Summarize and analyze North Coast technical data

Deliverables: List and provide a description of North Coast technical information sources, studies, models, data sets and analyses; List of data gaps where additional monitoring or studies are needed and a description of options to develop these data needs; Synthesis report of North Coast technical data

Task 4.2 Impacts and Benefits

This task will document the potential impacts and benefits of implementation of the NCIRWM Plan to serve as a benchmark for plan performance evaluation. The analysis will consider regional objectives, resources management strategies, environmental and impacts/benefits to economically disadvantaged communities and tribes. Potential impacts and benefits analysis will include, but not be limited to, water supply enhancement, water quality improvement, groundwater improvements, water conservation and reuse, watershed rehabilitation, habitat improvement and flood management.

Task 4.2.1 Identify potential North Coast impacts and benefits related to the long-term implementation of the NCIRWM Plan.

Task 4.2.2 Develop screening level tables of potential North Coast impacts and benefits at regional and local scales

Task 4.2.3 Quantify and monetize, where feasible, potential North Coast impacts and benefits of water supply enhancement, water quality improvement, groundwater improvements, water conservation and reuse, watershed rehabilitation, habitat improvement and flood management projects

Deliverables: Summary of potential impact costs and potential benefits related to implementation of the NCIRWMP quantified and monetized, where feasible, with assumptions described; tables of potential North Coast impacts and benefits.

Task 4.3 GIS database for NCIRWMP Applications

Task 4.3.1 Update current GIS data layers; identify and obtain new public geospatial data layers

Task 4.3.2 Clip, re-project and re-name data layers, develop .mxd

Task 4.3.3 Develop GIS data layers including, but not limited to, locations of tribal, DAC and other water systems with drinking water or wastewater impediments; energy independence projects and project potential; flood water management; groundwater monitoring; opportunities for water conservation or recycling; land uses that impact water quality; native plants that support healthy waterways on tribal lands; waterways necessary for tribal ceremonial purposes or subsistence fishing; etc.

Task 4.3.4 Perform analyses using GIS data as requested and as needed for planning; develop updated spatial data report

Task 4.3.5 Develop FGDC compliant metadata

Deliverables: Updated NCIRWMP geospatial data catalog; Updated North Coast Spatial Data Report; FGDC compliant metadata; DVD of NCIRWMP geospatial data, .mxd, and metadata

Task 5. Develop and Implement Plan Performance Monitoring & Data Management Plan

This task will build on the draft Data Management Plan for the North Coast region

(http://www.northcoastirwmp.net/Content/10377/North_Coast_Assessment_Monitoring_and_Data_Management.html) developed as part of a process intended to result in more efficient, effective, standardized data acquisition, input, analysis, and dissemination throughout the Region. The overarching goal for the NCIRWM Plan Performance and Data Management Plan is a streamlined and easy to use framework that is fully compatible with ongoing and newly-emerging state systems that will objectively assess and improve - through an adaptive management process - the performance of the NCIRWM Plan, its implementation projects, and other regional water management activities.

Task 5.1 Plan Performance and Monitoring

This task will ensure that the NCRWMP is making progress towards meeting the objectives in the IRWM Plan; is implementing projects listed in the Plan; ensures that each project within the Plan is monitored to comply with all applicable rules, laws and permit requirements. This task will also identify a listing of

core indicators to assess NCIRWM Plan performance and projects, as well as plan performance measures and processes.

Task 5.1.1 Identify baseline assessments that characterize the status of water quality, supply and other water management issues at the regional and local scales

Task 5.1.2 Identify appropriate indicators of water quality, water quantity and ecosystem health to accurately track changes at the local and regional scales

Task 5.1.3 Develop and standardize data development and output using widely accepted peer-reviewed protocols; update monitoring/assessment protocols and data sources relevant to the North Coast region

Task 5.1.4 Develop and provide a system for on-going monitoring and analysis of appropriate indicators to inform individual project management, the adaptive management of North Coast ecosystems and to evaluate the effectiveness and performance of the NCIRWM Plan including monitoring frequency and identification entities responsible for IRWM implementation evaluation

Deliverables: List and provide a description of assessments needed to characterize and/or evaluate the status of water quality, supply and other water or watershed management issues in the Region; List and provide a description of indicators of water quality, water quantity and ecosystem health appropriate to the North Coast; List of assessments and monitoring protocols appropriate for identified project types in the Region; NCIRWM Plan Performance effectiveness plan

Task 5.2 Data Management

This task will update the NCIRWM Data Management Plan to include the core indicators to assess NCIRWM Plan performance and projects, plan performance measures and process, updated monitoring/assessment protocols and data sources relevant to the North Coast region, updated list of monitoring programs and state data systems, and improved educational materials and training opportunities.

Task 5.2.1 Use NCIRWMP Website to disseminate public domain data, assessment and monitoring protocols, and statewide standards, including SWAMP, WDL, GAMA, CEIC, CERES, as well as the NCIRWMP Data Management Plan

Task 5.2.2 Update the NCIRWMP Data Management Plan that outlines priority water-related assessments for the Region, all major protocols and standards specified by the State and outlines how they integrate with local management strategies and projects, and specifies how the NCIRWMP Priority Projects are to be monitored to be in compliance with State requirements (including SWAMP, WDL, GAMA, CEIC, CERES and other data standards). Identify how data will integrate into the adaptive management framework and be used to update the NCIRWMP.

Task 5.2.3 Update the NCIRWMP Data Management with descriptions of data collection techniques, how stakeholders can contribute data, the QA/QC measures to be implemented for data

collected, and how the data collected will be transferred and shared between the NCRWMG, project proponents, interested stakeholders and local, state and federal agencies

Deliverables: List of assessments and monitoring protocols appropriate for identified project types in the Region; Educational materials regarding the appropriate deployment of each protocol; Updated NCIRWMP website pages with Plan Performance and Data Management assessment and monitoring protocols, data sources, monitoring programs, educational materials and training opportunities; Updated NCIRWM Data Management Plan to include North Coast project and NCIRWM Plan Performance indicators, protocols and analysis

Task 5.3 Web-based data upload and dissemination tool

The development of a web-based data management tool will provide a formal and ongoing process for user-friendly data management in the region including:

- A single location for monitoring data and supporting documentation submittal
- A mechanism for tracking project monitoring progress and plan performance
- A mechanism for public review of uploaded documents, data and supporting documentation
- A mechanism for data delivery to state-wide data systems and clearinghouses

A clearinghouse portal for monitoring/assessment protocols and data sources relevant to the North Coast region and educational materials

Task 5.3.1 Develop a web-based data upload and dissemination tool, integrated into existing Proposition 50 invoice reporting tool, for user-friendly data management in the region; develop and deploy project monitoring tracking and plan performance analysis tool

Task 5.3.2 Collect monitoring data from project proponents and stakeholders via interactive web portal(s) for dissemination to the public

Task 5.3.3 Provide trainings to project proponents for effective data upload

Task 5.3.4 Develop mechanism for data delivery to state - wide data systems and clearinghouses

Task 5.3.5 Create NCIRWMP web portal for plan performance data and analyses; educational materials; and monitoring/assessment protocols and data sources relevant to the North Coast region

Deliverables: Web-based data upload, analysis and dissemination tools integrated into existing Proposition 50 invoice reporting tool; Plan performance and project monitoring data delivered to state-wide data systems and clearinghouses; Web portal to house and make public: plan performance data and analyses; educational materials; and monitoring/assessment protocols and data sources relevant to the North Coast region

Task 5.4 Adaptive Management Framework for NCIRWMP

Integral to data assessment and analysis is integrating new learning into the planning process through

adaptive management. This task will update the process and tools for implementing an adaptive management approach for the NCIRWMP; one that will include the ongoing incorporation of statewide and local data at a variety of spatial and temporal scales, with the intent of continually refining NCIRWMP content, objectives and strategies.

Task 5.4.1 Update and document a process for ongoing integration of local/regional/state/federal priorities, data, projects and regulatory requirements, including climate change impacts and adaptation strategies.

Deliverables: Updated Adaptive Management Framework for NCIRWMP

Task 6. Integration of Multiple Planning Objectives

The NCIRWMP will develop new planning frameworks, plan content and strategies for integration into the NCIRWMP in four priority areas:

1. Regional groundwater monitoring needs assessment, planning and outreach
2. North Coast Climate Mitigation/Adaptation/Energy Independence
3. North Coast Floodwater/Stormwater Management
4. Local Land Use and Regional Planning

Task 6.1 Identify, Compile and Synthesize relevant North Coast planning documents and processes

This task will build upon work accomplished during Phase I & II, and will include a robust search for new and updated local, regional, state and national planning documents. Plans will be summarized and analyzed with the intention of evaluating, refining and supporting integrated regional planning objectives, evaluating integration of management strategies, assessing water quality and water supply needs for the Region, and avoiding redundancy.

Task 6.1.1 Identify gaps in Phase I & II list of planning documents and programs

Task 6.1.2 Evaluate options for filling planning data gaps

Task 6.1.3 Obtain planning documents and update North Coast Planning Documents catalog and matrices

Task 6.1.4 Summarize and analyze planning documents and update North Coast Region Planning Effort Synthesis Report

Deliverables: List of planning document and program gaps and summarize options for filling planning data gaps; Updated North Coast Planning Documents catalog and matrices; Updated North Coast Region Planning Effort Synthesis Report

Task 6.2 Regional groundwater monitoring needs assessment, planning and outreach

A North Coast region groundwater monitoring needs assessment would be conducted based on SBx7.6 and California Statewide Groundwater Elevation Monitoring Program (CASGEM) requirements. This would include identification of target groundwater basins, existing elevation monitoring data and programs, data gaps, proposed and potential monitoring locations, proposed data collection frequency and methods and estimated costs. Planning and implementation templates would be developed for use by counties or other eligible entities in the NCIRWMP area interested in assuming responsibility for groundwater monitoring. Outreach and technical assistance would occur to entities from groundwater basins and sub-basins in the region that may not have the institutional capacity to comply with the DWR's CASGEM requirements.

Task 6.2.1 Perform a groundwater monitoring needs assessment of the North Coast region area to include identification of target groundwater basins, existing elevation monitoring data and programs, data gaps, potential monitoring locations, frequency and data collection and estimated costs

Task 6.2.2 Develop groundwater-level collection standard operating procedures and make available on the NCIRWMP website and to interested monitoring entities

Task 6.2.3 Provide training on groundwater-level monitoring, data management and dissemination

Task 6.2.4 Work with DWR Northern and North/Central districts and ACWA Region 1 to identify strategies for CASGEM compliance in the North Coast region

Deliverables: North Coast groundwater monitoring needs assessment; Groundwater-level collection standard operating procedures posted to the NCIRWMP website; Training materials for groundwater-level monitoring, data management and dissemination; North Coast groundwater monitoring strategies report

Task 6.3 Regional Pilot Project: Santa Rosa Plain Groundwater Management Planning

As a regional groundwater management, assessment and planning pilot project, the Santa Rosa Plain Groundwater Management Planning project will: develop a non-regulatory process resulting in active local control and groundwater resources management; effectively address long-term drought preparedness by contributing to sustainable water supply and reliability; provide a linkage between water management and land use planning; improve coordination of surface water and groundwater management to meet existing and future water demands; Integrate with other regional studies and planning efforts; and promote long-term groundwater basin viability. The Santa Rosa Plain groundwater basin covers an area of approximately 80,000 acres and is home to approximately half of the population of Sonoma County, the most populous county in the North Coast region. The groundwater system beneath the Santa Rosa Plain provides numerous benefits to the region, including rural residential and municipal water supplies, irrigation water for agriculture, and baseflow to streams and surface water bodies. Future growth in population and demand for water coupled with constraints on existing surface water sources are likely to increase stresses on the region's groundwater resources. To address this

matter and build on the recent progress of the Sonoma Valley Groundwater Management Program, the Sonoma County Water Agency, with its collaborative partners, proposes to develop a plan for the Santa Rosa Plain Groundwater Basin. Because of the size and importance of this groundwater basin, and the need for the North Coast to address groundwater management planning on a regional scale, the NCRWMP has determined that this area is appropriate as a pilot assessment project – the results of which can be shared with and built upon by other counties and municipalities in the region.

Task 6.3.1 Organize Santa Rosa Plain Basin Advisory Panel to be the primary decision-making body and comprised of representatives from a broad spectrum of organizations and interest groups with geographic representation, including governmental, tribal, environmental, water purveyors, agricultural, rural residential well owners, business/developers, and scientists.

Task 6.3.2 Provide for stakeholder information sharing and technical briefings on a monthly basis to identify information/data gaps, provide updates on the planning process, and incorporate stakeholder input.

Task 6.3.3 Develop Groundwater Management Plan and plan elements: identify basin management objectives; develop management strategies to achieve objectives; develop a monitoring and data collection element; and agree on governance structure and implementation plan. The goal of this phase would be a consensus-based adopted groundwater management plan.

Task 6.3.4 Develop outreach materials and conduct regional information sharing. Outreach materials will highlight the key aspects of the process (e.g., keys to success and lessons learned). Members of the Sonoma County Water Agency and Basin Advisory Panel will plan and convene a workshop or a series of workshops for North Coast IRWMP members to present a model template for developing a collaborative basin-wide groundwater management plan.

Deliverables: Santa Rosa Plain Basin Advisory Panel meeting agendas and meeting notes, group charter, mission, and ground rules; Presentations about Santa Rosa Plain groundwater, groundwater management planning documents, constituent briefings; Santa Rosa Plain Groundwater Management goals and basin management objectives; Monitoring and data collection standard operating procedures, groundwater monitoring fact sheets and informational brochures, access agreement templates; Adopted Santa Rosa Plain Groundwater Management Plan; Workshop(s) agenda, fact sheets on Groundwater-Level Monitoring and Groundwater Management Planning

Task 6.4 North Coast Climate Mitigation/Adaptation/Energy Independence

The NCIRWMP has made substantial progress on incorporating climate mitigation, adaptation and energy independence into its planning and implementation framework, including data gathering, literature review, outreach and issues identification, as well as the successful identification and funding acquisition in support of emissions reduction projects. However, there is a substantial need and opportunity for additional planning to more fully integrate climate change mitigation, adaptation and energy independence into all elements of the NCIRWMP, including water supply reliability, water quality, watershed health, aquatic ecosystem function, economic vitality and community health. There is

an especially strong need to evaluate the potentially disproportionate impacts of climate change on disadvantaged communities. Additionally, it is imperative that the North Coast region understand and respond to and support the legislative, policy and regulatory initiatives related to climate change in California, including AB 32, SB 375, SB 97, and EO S-13-08. There is an opportunity for the NCIRWMP to refine its climate strategy based on the foundational work to be found in DWR's Climate Change Clearinghouse, and to build on these and other guidance documents by developing downscaled North Coast evaluations and guidance documents that support regional objectives. The NCIRWMP proposes to develop a chapter of the plan that focuses on, evaluates and develops regional strategies for those areas of climate mitigation/adaptation that are most relevant to and actionable by the North Coast, including the following:

- Carbon sequestration via sustainable forestry and watershed conservation
- Biomass energy generation (integrated with forest and aquatic system sustainability, catastrophic fire reduction, emission reductions/offsets, local economic growth, source watershed protection),
- Emissions reductions related to water conveyance, water conservation, wastewater processing
- Building retrofit programs, municipal financing for alternative energy generation
- Climate adaptation strategies that integrate ecosystem resiliency with human community resiliency, with a specific focus on the disproportionate effect of climate change on DACs

The proposed chapter will reflect the direction from relevant state and federal laws, the latest climate science, and technical options related to GHG emissions reduction.

Task 6.4.1 Develop North Coast Climate Mitigation/Adaptation/Energy Independence Report and NCIRWM Plan section that focuses on, evaluates and develops regional strategies for those areas of climate mitigation/adaptation that are most relevant to the North Coast, including the following: carbon sequestration; biomass energy generation; emissions reductions related to water conveyance, water conservation, wastewater processing; building retrofit programs and municipal financing for alternative energy generation; and climate adaptation strategies that integrate ecosystem resiliency with human community resiliency, with a specific focus on DACs. The proposed chapter will reflect the direction from relevant state and federal laws, the latest climate science, and technical options related to GHG emissions reduction.

Task 6.4.2 Update the NCIRWM Plan to describe the potential effects of climate change in the North Coast Regional Description; identify regional approaches to climate change adaptation and mitigation that integrate with resource management strategies and land use planning; and identify strategic mechanisms in the NCIRWM planning and decision-making processes to promote climate change enhancements including, but not limited to, NCIRWM project review process, NCIRWMP objectives, Plan performance and monitoring, and overall coordination and outreach efforts

Task 6.4.3 Evaluate regional strategies for climate change mitigation and adaptation, including biomass energy, alternative energy strategies, water conservation, carbon sequestration. Identify

opportunities for integration of mitigation and adaptation strategies – thereby gaining economies of scope and scale. Example: riparian corridor expansion and source watershed protection may result in GHG emissions offsets via sequestration and may also make a particular watershed and downstream community more resilient to the more volatile flood cycles expected with climate change

Task 6.4.4 Identify, compile and synthesize relevant local, regional, state & national legislative documents and processes related to climate mitigation and adaptation

Task 6.4.5 Identify and evaluate regional climate change impacts and vulnerabilities, including impacts to human communities and ecosystems, with a special emphasis on the impacts to disadvantaged communities, tribes and anadromous fish

Task 6.4.6 Compile templates for quantitative or qualitative GHG emissions estimation and analysis for project proponents.

Task 6.4.7 Provide education, capacity building, outreach and technical assistance related to climate change mitigation and adaptation including regulations, science and potential actions and strategies

Task 6.4.8 Develop framework and guiding principles documentation for voluntary registration of interested regional entities in California Climate Action Registry

Task 6.4.9 Develop framework for integrating the data and plans from this task into the flood/stormwater management and local land use planning chapters (Tasks 6.5 and 6.6, described below) as well as the larger Phase III NCIRWMP.

Deliverables: North Coast Climate Mitigation/Adaptation/Energy Independence Report (NCCMAEI); Section in NCCMAEI that summarizes regional strategies for climate change mitigation and adaptation and opportunities for integration of these strategies in the North Coast region; Section in NCCMAEI that summarizes relevant local, regional, state & national legislative documents and processes related to climate mitigation and adaptation; Section in NCCMAEI that summarizes regional climate change impacts and vulnerabilities; GHG emissions estimation and analysis template; Education, outreach and technical assistance materials related to climate change mitigation and adaptation; Guiding principles document for registering regional entities in California Climate Action Registry. List of registered entities in the North Coast region

Task 5.5 North Coast Floodwater/Stormwater Management Plan

The NCIRWMP has addressed stormwater and flood management in its planning and implementation framework in a preliminary way, and intends to develop an integrated flood and stormwater management plan for integration into the Phase III NCIRWMP. The proposed section and report will include: a) a review of the available scientific and report literature related to flood and stormwater management, including guidance documents from DWR, SWRCB, EPA, the state Floodplain Management Taskforce and other state and federal agencies; b) an evaluation of the relevant flood and stormwater issues and challenges in the North Coast; c) integrated flood and stormwater management strategies

that may be applied in the North Coast region, such as land conservation, watershed enhancement, land use planning policies, floodplain restoration, voluntary BMPS on private lands, LID infrastructure development, green infrastructure approaches, and potential economic and policy incentives; d) education and outreach materials to be provided to stakeholders in the North Coast region outlining the potential strategies.

Task 6.5.1 Review scientific and report literature and guidance documents from DWR, SWRCB, EPA, et al related to flood and stormwater management and strategies for integration

Task 6.5.2 Evaluate of flood and stormwater issues and challenges in the North Coast region via stakeholder and expert interviews, review of local and regional planning and assessment documents.

Task 6.5.3 Develop a suite of strategies for an integrated approach to flood and stormwater management that accounts for community safety and public health in the context of healthy watersheds and viable local economies

Task 6.5.4 Develop an outreach and education plan to share strategies, resources and BMPs with the North Coast region, including general plan update elements

Task 6.5.5 Develop Flood and Stormwater Management Plan report for the NCIRWMP

Task 6.5.6 Integration of the flood and stormwater management plan report with other NCIRWMP plan elements (including climate change and local land use planning) into the Phase III plan

Deliverables: List of relevant scientific reports and guidance documents related to flood and stormwater management; Summary of stakeholder and expert interviews and review of local and regional planning and assessment documents; North Coast Flood and Stormwater Management Plan that includes strategies for an integrated approach to flood and stormwater management that accounts for community safety and public health; Outreach and education materials to share flood and stormwater management strategies, resources and BMPs with North Coast stakeholders posted to the NCIRWMP website

Task 6.6 Local Land Use and Regional Planning

Elements of the NCIRWMP have been integrated into various county general plans in the North Coast, and many local planning entities have incorporated the goals and objectives of the NCIRWMP into their planning frameworks. There are significant opportunities to further develop the relationship between the NCIRWMP and local land use and regional planning, via outreach and education, development of model planning elements that can be adopted by counties and municipalities, inclusion of NCIRWMP input into local and regional policy development, and increased collaborative planning efforts between the NCIRWMP and local governments and planning agencies. In addition to work accomplished by NCIRWMP staff and technical committee members, this task seeks to more formally integrate local county land use planners into the process (via sub-contracts) and work with them to more fully integrate the NCIRWMP with local land use processes.

Task 6.6.1 Review local and regional land use planning agency policies, plans and planning frameworks and identify opportunities for integration, outreach and data sharing with the NCIRWMP

Task 6.6.2 Develop an education and outreach strategy for informing local and regional planning agencies regarding the NCIRWMP and the principles of Integrated Regional Water Management Planning, including presentations, meetings, web pages, and workshops

Task 6.6.3 Solicit interest and identify counties that wish integrate elements of the NCIRWMP into local general plans and local land use policies, as well as the development of new general plan policies related to water resources, storm and floodwater management, climate mitigation and adaptation, Water Conservation law compliance and others.

Task 6.6.4 Develop detailed and regionally consistent scopes of work and issue sub-contracts to selected counties to integrate NCIRWMP objectives into local county general plans and develop new general plan elements and local land use policies consistent with the NCIRWMP.

Task 6.6.5 Identify potential model planning elements, including but not limited to, water resources elements, low impact development elements, stormwater/floodwater strategies, climate adaptation and mitigation elements that reflect the goals and objectives of the NCIRWMP and the local/regional planning agency, and can be developed in collaboration between the NCIRWMP and local/regional planning agencies

Task 6.6.6 Identify opportunities for integrating the IRWMP approach and strategies into local planning efforts and policy development

Task 6.6.7 Based on the above tasks, develop a report summarizing the status of local land use planning and identify a process and priorities for enhanced integration of the NCIRWMP with local land use planning, and methods by which the NCIRWMP can support and add value to local land use planning efforts. The report will also describe water management projects that are compatible with existing and planned land use designations; describe current land use and water planning relationship in the North Coast; and identify planning strategies which may be implemented or evaluated through the NCIRWM process.

Task 6.6.8 Integrate the Local Land Use Planning Report with the Flood/Stormwater Management Planning report and the Climate Mitigation/Adaptation/Energy Independence reports, as well as the Phase III NCIRWMP

Deliverables: List of local and regional land use planning agency water resource policies, plans and planning frameworks; Education and outreach materials regarding the NCIRWMP and the principles of Integrated Regional Water Management Planning, including presentations, meetings, web pages, and workshops; list of counties participating in the NCIRWMP/local land use planning integration process; scopes of work and sub-contracts for each selected county; Local Land Use Planning Report summarizing the status of local land use planning in the region and discusses a process for enhanced integration of the NCIRWMP with local land use planning

Task 7. Develop NCIRWMP Phase III

Develop a draft of the NCIRWMP, Phase III, based on input and data obtained from the above tasks. This task will result in the substantial enhancement and updating of the NCIRWMP Phase II, and will reflect all Proposition 84 IRWM Program Guidelines and Criteria, as well as the direction of the NCIRWMP PRP. The Phase III plan will include a process for on-going inclusion of prioritized projects submitted to the NCIRWMP process, and reviewed and integrated into the NCIRWMP by the NCIRWM Policy Review Panel and Technical Peer Review Committee. The Phase III plan will include the adaptive management framework, long-term financing plans, updated data and maps, a list of prioritized projects submitted to the North Coast IRWM process and sections about addressing climate change, land use, low impact development, flood management, and other requirements of the Proposition 84 and Proposition 1E guidelines, see Table 3 in the Background Section 7 that lists the proposed NCIRWM Plan Phase III section updates in relation to the Proposition 84/1E Plan Standards.

Convene a review group to provide targeted, detailed input on the NCIRWMP Phase III including State agency partners, the NCIRWMP Policy Review Panel, Technical Peer Review Committee and a Stakeholder Focus Group. The Proposition 84 guidelines, other relevant planning processes, and local priorities and preferences shall be included in the planning and input meeting.

Task 7.1 Draft NCIRWM Plan, Phase III

Task 7.1.1 Identify sections of NCIRWMP Phase II in need of updating or revision including the Regional Description, Objectives, Identification of Key Water Management Issues, Development Process for the NCIRWMP, Project Integration and Implementation and NCIRWMP Evaluation and Measurement Mechanisms

Task 7.1.2 Obtain the list of prioritized projects from the Policy Review Panel

Task 7.1.3 Update the IRWM Plan to reflect tribal territory, water-related concerns and priorities, water management, cultural values and tribal expertise through interviews, GIS data development, data gap identification and filling, potential climate change impacts and adaptation strategies, NCIRWM Plan amendments, and changes to IRWM Plan Standards.

Task 7.1.4 Develop draft NCIRWMP Phase III reflecting DWR Proposition 84 plan standards and integrating new reports/chapters outlined above

Task 7.1.5 Screen draft NCIRWMP Phase III against statewide, regional and local criteria

Task 7.1.6 Release draft NCIRWMP to stakeholders for review and input via the website, libraries, workshops, meetings, etc.

Task 7.2 Draft NCIRWM Plan, Review, Final NCIRWM Plan, Phase III, Plan Adoption

Task 7.2.1 Convene draft NCIRWMP Phase III Review Group

- Task 7.2.2** Review the draft plan, both as individual group members and in 3-5 facilitated group meetings
- Task 7.2.3** Summarize input from the Review Group
- Task 7.2.4** Incorporate input into the draft NCIRWMP Phase III
- Task 7.2.5** Finalize NCIRWMP, Phase III
- Task 7.2.6** Adopt NCIRWMP, Phase III including each NCRWMP member and project proponents named in the Plan

Deliverables: Updated NCIRWMP Plan sections; List of NCIRWMP Prioritized Projects, draft NCIRWMP, Phase III; List of NCIRWMP Phase III Review Group; Summarized review comments and input; Final NCIRWMP, Phase III; Adopted NCIRWMP, Phase III

Task 8. Regional Contract Administration

Regional Contract Administration will continue to provide QA/QC on all invoices and progress reports submitted by sub-grantees prior to compiling regular grant progress reports and invoices to submit to the granting agency. The Regional Contract Management Team will continue to act as the liaison between the project partners (sub-grantees, sub-contractors) and DWR to streamline communications. In addition, the Regional Management Team will continue to maintain auditable files and, through the innovative web-based project management tool, provides access to project information to the public.

Task 8.1.1 Progress reports and invoices will be provided quarterly and a final report provided at the end of the project per the grant agreement; contract coordination and communication; and participation in NCIRWMP meetings

Deliverables: 8 Quarterly Progress Reports, Invoices, Final Report